

# **MILITARY OPERATIONS ON URBAN TERRAIN (OFFENSE)**

Subcourse Number IN0726

EDITION A

United States Army Infantry School  
Fort Benning, Georgia 31905-5593

6 Credit Hours

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This subcourse contains three lessons. You will learn to perform a specific task required in planning for and conducting offensive operations on urban terrain.

In [Lesson 1](#), Identify THREAT Force Defensive Doctrine, you will achieve the following objective:

**TASK:** Identify THREAT force defensive doctrine.

**CONDITION:** Given extracts of doctrinal literature and a series of multiple-choice questions.

**STANDARD:** THREAT doctrine will be correctly identified IAW subcourse text and [FM 90-10](#).

In [Lesson 2](#), Plan an Attack on Urban Terrain at Battalion Task Force Level, you will achieve the following objective:

**TASK:** Plan an attack on urban terrain at battalion task force level.

**CONDITION:** Given extracts of doctrinal literature, an offensive tactical situation for a battalion TF S3, and a series of multiple-choice questions relating to tactical reasoning or tactical situations.

**STANDARD:** The attack plan will be IAW subcourse text, [FM 90-10](#), and [FM 90-10-1](#) and include use of supporting artillery and other types of combat support.

In [Lesson 3](#), Plan an Attack on Urban Terrain at Company Team Level, you will achieve the following objective:

**TASK:** Plan an attack on urban terrain at company team level.

**CONDITION:** Given extracts of doctrinal literature, an offensive tactical situation for a team commander, and a series of multiple-choice questions relating to tactical reasoning or tactical situations.

**STANDARD:** The attack plan will be developed IAW subcourse text and include use of artillery and other types of combat support.

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## LESSON 1

# IDENTIFY THREAT FORCE DEFENSIVE DOCTRINE

The task taught in this lesson consists of identifying THREAT Force defensive doctrine.

**Task:** Identify THREAT Force defensive doctrine.

**Condition:** Given extracts of doctrinal literature and a series of multiple-choice questions.

**Standard:** THREAT doctrine will be correctly identified IAW subcourse text and [FM 90-10](#).

### Introduction

When Allied forces landed on the Normandy beaches in June of 1944, one of the D-Day objectives was the city of CAEN, France. General Montgomery was confident that his forces would secure the city, which sat astride a major exit from the beaches, within 24 hours. CAEN, however, was not secured until 10 July, 33 days later. The city's seizure had been preceded by an artillery and air preparation so severe that tanks could not move through the rubble strewn streets.

In August of 1944, the U.S. VIII Corps, under General Middleton, attacked east on the Brittany peninsula to secure the port city of BREST. Early seizure of this city had been set as a goal during invasion planning. BREST, however, was not to fall quickly; it was taken only after loss of 10,000 U.S. casualties over a 44 day period. The Germans' tenacious defense of the city was the major factor in the delay.

Another World War II example of urban fighting occurred in the Pacific. The U.S. XIV Corps landed on northern LUZON Island in the Philippines and advanced south to MANILA in one month. It took nearly the same period, over 21 days, to secure the city.

When U.S. and Vietnamese units initiated attacks in HUE, South Vietnam, in late January and early February of 1968, few of the soldiers would have guessed that it would take over 25 days to defeat an enemy which had only hastily occupied and prepared its defenses in the city.

Operations in urban areas are tedious, time-consuming, and often costly operations which place great demands upon commanders, staff officers, small unit leaders, and the individual soldier. The urban environment necessitates modifications to our tactical methods and techniques, organization, and equipment. However, the principles of war and offense do not change. The commander must apply these principles in urban combat as he would in any other type of offensive operation.

The four instances of city fighting previously mentioned are only a small percentage of the battles in urban areas which have shaped military campaigns of the past. Forty percent of the fighting in Western Europe during World War II took place in urban areas.

Cities that have played an important part in 20th century warfare are listed below.

#### CITIES CONTESTED DURING 20TH CENTURY CONFLICTS

RIGA	1917	*MANILA	1945
MADRID	1936	*SAN MANUEL	1945
WARSAW	1939	*SEOUL	1950
ROTTERDAM	1940	BUDAPEST	1956
*MOSCOW	1942	*BEIRUT	1958
*STALINGRAD	1942	*SANTO DOMINGO	1965
*LENINGRAD	1942	*SAIGON	1968
*WARSAW	1943	*KONTUM	1968
*PALERMO	1944	*HUE	1968
*BREST	1944	BELFAST	1972
*WARSAW	1944	MONTEVIDEO	1972
*AACHEN	1944	QUANGTRI CITY	1972
*ORTONA	1944	AN LOC	1972
*CHERBOURG	1944	XUAN LOC	1975
*BRESLAU	1945	SAIGON	1975
*WEISSENFELS	1945	BEIRUT	1975-1978
BERLIN	1945	MANAGUA	1978

\*Direct US troop involvement

Urban population is expanding in both developed and developing countries. In developed countries, half the population lives in urban areas. In the USSR, for example, more than 60 percent of the people live in urban areas. With the introduction of modern technology into the developing countries, their urban growth rate is greater than that of the developed countries. The post WW II population explosion and the phenomena of increasing urbanization found in many areas of the world indicate that armies in future wars will be ensnared by urban combat. Armies would like to avoid cities but the mere fact that they are there in increasing size and quantities indicates we may not be able to do so. Cities are important for several reasons: they are the focal point of lines of communication, they have an intrinsic political and psychological value to their respective nations, and they are industrial and population centers that represent a source of materiel and manpower resources to the force that controls them.

The THREAT also realizes the importance of urban combat and devotes approximately 20 percent of its training time to urban fighting. A discussion of the tactics and techniques used by the THREAT in urban combat is contained in the following exercise.

#### EXERCISE 1: DETERMINING HOW THE ENEMY DEFENDS

The THREAT plans his defense of a built-up area on the concept of defending outside the city itself along likely avenues of approach. Strong defensive positions are organized to prevent envelopment.

However, the THREAT may organize its defense inside the city, in order to hold it and employ large tank units outside the city to provide counter attack forces.

Motorized rifle battalions usually defend in urban areas in two echelons, normally two companies occupying the first echelon and one company the second.

A small reserve is retained under battalion control. They defend such areas by having:

- Company or platoon strongpoints
- A reserve, in a separate strongpoint
- Security elements posted forward of strongpoints
- Ambushes and obstacles between strongpoints
- Underground routes to connect positions
- Dummy strongpoints to deceive attackers
- A rear service area.

Fighting within the city usually breaks up into a number of separate local battles focused around the defense of strongpoints. Groups of buildings at crossroads and squares are transformed into mutually supporting strongpoints and the overall defensive system is based on holding a series of these critical areas.

Companies prepare strongpoints by defending in perimeter of several buildings having mutual support. Platoons defend either one or two buildings within a company strongpoint or a floor of a large building. Strongpoints are prepared in strongly built buildings. Wooden buildings are avoided or, if they block fields of fire, they are destroyed. Covered routes are established within each strongpoint, either through the buildings, through underground routes, or behind barricades. Shelters for protection from nuclear weapons are set up in basements. Weapons are positioned to dominate key intersections and streets.

Communications are obtained by creating holes through walls, running wire through sewers, subways, and trenches, and by using messengers. Streets are mined and blocked with any available material, such as rubble, wrecked vehicles, or wire entanglements. Strongpoints are well-stocked with supplies in view of the THREAT's standing orders to defend every single building, every inch of ground, to the last man. Normal THREAT doctrine to employ spoiling attacks and infiltration of the flanks and rear of attacking forces is emphasized. Individuals and small units are used in cleverly concealed positions and hideouts to perform contingency, stay-behind missions.

### **Defensive Fire Planning**

Fire is a combination of flanking, interlocking, and layered fire from all weapons. Weapons are deployed to provide layers of fire on approaches to a defensive area and on its flanks and rear. Fire is tied in with obstacles to cover open areas. Mines may be deployed in gaps between strongpoints on approaches.

### **Enemy Combined Arms in Defense of an Urban Area**

The motorized rifle battalion is the unit most commonly deployed in urban terrain and provides the base element for the urban force structure. Other elements are attached to or in support of the motorized rifle battalion. Artillery, air, and tank support do not differ materially from normal defensive support;

however, greater control is emphasized. Artillery support is provided by single guns firing directly from strongpoints. An artillery group outside the built-up area provides fire on call from observers located in the strongpoint. Although tanks are normally held in reserve for counterattacks, single tanks, and SP guns may be sited in strongpoints.

- Tanks are attached to a motorized rifle battalion to reinforce antitank defense, to fight as "roving guns" or to be positioned in strongpoints. Tanks may be used in ambushes, where they are employed primarily against attacking tanks.
- Artillery causes attacking tanks to close their hatches, helps separate them from dismounted infantry, and is a means of nuclear delivery. In addition to their normal, indirect fire capability, as much as 50 percent of artillery pieces are attached to companies and platoons and used in a direct lay role.
- Mortars, with their high-angle fire, portability, and high rate of fire, are used extensively in urban combat. The THREAT has heavy mortars, 160mm to 240mm, for use in urban areas.
- Smoke is used to conceal maneuver between strongpoints, defensive areas, and building that do not have concealed routes between them.
- Antitank crews prepare firing positions from which they can cover streets and other main arteries into public squares. They also prepare firing positions along expected routes of attack where fields of fire are good.
- Chemical defense elements, when attached to a motorized rifle battalion, may perform radiological and chemical reconnaissance in order to detect the effects of NBC weapons and determine the degree and limits of contamination.
- Nuclear weapons may be used against an attacker's nuclear delivery means or on concentrations of force on the approaches to a city. In addition, they may be used against an attacking force which seizes part or all of an urban area, if there are no other weapons available.
- Frontal (tactical) aviation is used to strike concentrations of attacking troops, nuclear delivery means, groups of artillery, and forces trying to bypass or encircle an urban area.
- Helicopters may help by:
  - delivering cargo to defending units that are isolated
  - inserting reconnaissance and ambush forces in the attacker's rear area
  - striking armored forces on approaches.
- Political Officers - Based on the commander's guidance, the deputy commander for political affairs plans the party-political support for the combat missions. The political plan stresses that a defended building must be a fortress, and the force which is morally stronger and better prepared mentally will be the victor.

### **Other Enemy Defensive Techniques**

During an artillery preparation, defending troops are sometimes kept on standby in shelters. When the preparation is lifted, those troops move forward and occupy their primary defensive positions. Defenders strive to separate attacking infantrymen from tanks so the tanks may be destroyed at short ranges by antitank weapons. Motorized rifle companies will counterattack before a penetrating force has a chance to prepare a hasty defense.

Additional THREAT Defensive Doctrine has been extracted from [FM 90-10](#). Read these pages now before proceeding to [Practical Exercise 1](#).

## LESSON 1

### PRACTICE EXERCISE

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. Where does the THREAT force attempt to establish his defense in an urban area?

2. Under what circumstances will the THREAT defend within a built-up area?

3. How are motorized rifle battalion (MRB) defenses generally organized in an urban area?

4. Enemy companies prepare strongpoints by defending

5. As a rule the MRB defends as part of the:

- A. Larger, division-size unit.
- B. Smaller, company-size unit.
- C. Larger, regimental-size unit.
- D. Larger, brigade-size unit.

6. How are tanks, attached to a motorized rifle battalion, employed in a MOUT defense?

7. List the missions of an MRB on the main avenue of approach and in the first echelon.

8. List three missions of an MRB in the second echelon or on a secondary avenue of approach.

9. List three missions of the reserve in an MRB defense.

10. If the attack penetrates the first echelon, what must the THREAT MRB do?

11. Enemy doctrine for the defense of built-up areas emphasizes the importance of the  concept.

12. What characteristics make the enemy MRB the most effective unit for urban combat?

13. Which echelon of the MRB covers a narrower front and receives greater reinforcements.

14. a. What type of buildings will the enemy use as strongpoints?  
b. What type of buildings will the enemy avoid for use as strongpoints?

a.

b.

15. What is the role of the security zone on the urban battlefield?

16. In a MOUT environment, smoke agents are used extensively to

17. In addition to their normal employment, THREAT artillery is deployed

18. Fire planning for THREAT infantry weapons requires what type of combination of fires?

19. What does the political plan of the THREAT force stress?

20. How may THREAT forces employ frontal (tactical) aviation in a MOUT defense?

# PRACTICE EXERCISE

## ANSWER KEY AND FEEDBACK

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1. Where does the THREAT force attempt to establish his defense in an urban area?

Well forward of an urban area in order to engage and defeat the attacker on the approaches to and flanks of the built-up area.

2. Under what circumstances will the THREAT defend within a built-up area?

When attacking forces break through defenses organized on the approaches and threaten the built-up area proper; when the built-up area has great political, strategic, or economic importance; when it is necessary to defend an urban area which is a critical communication/transportation complex.

3. How are motorized rifle battalion (MRB) defenses generally organized in an urban area?

In two echelons to provide greater depth and reserves.

4. Enemy companies prepare strongpoints by defending \_\_\_\_\_.

In a perimeter of buildings having mutual support.

5. As a rule the MRB defends as part of the:

- A. Larger, division-size unit.
- B. Smaller, company-size unit.
- C. Larger, regimental-size unit.
- D. Larger, brigade-size unit.

6. How are tanks, attached to a motorized rifle battalion, employed in a MOUT defense?

Employed in ambushes or to reinforce antitank defenses; they may operate as "roving guns" or be positioned in strongpoints.

7. List the missions of an MRB on the main avenue of approach and in the first echelon.

Receives the main attack of attacking forces  
Inflicts decisive damage on the assaulting forces to prevent a breakthrough by tanks and infantry.

8. List three missions of an MRB in the second echelon or on a secondary avenue of approach.

Prevents flanking/rear maneuvers

Holds defended sites and prevents further advances by an attacker that has penetrated the built-up area

Conducts counterattacks to restore positions of the battalions in the first echelon.

9. List three missions of the reserve in an MRB defense.

Reinforces/replaces battalions in the first echelon; covers breaches caused by enemy nuclear weapons

Holds sites deep within the defensive positions whose retention is vital to the overall defense

Extinguishes or contains fires that endanger friendly forces or limit their operations

Conducts rear area security and defeats air-landed forces that are inserted in the rear.

10. If the attack penetrates the first echelon, what must the THREAT MRB do?

Inflict maximum losses; stop further forward movement; and create favorable conditions for the second echelon or regimental reserve to counterattack.

11. Enemy doctrine for the defense of built-up areas emphasizes the importance of the \_\_\_\_\_ concept.

Combined arms.

12. What characteristics make the enemy MRB the most effective unit for urban combat?

Inherent mobility, armor protection, and rapid capability to adapt buildings and other structures for defense or as shelters against the effects of nuclear weapons.

13. Which echelon of the MRB covers a narrower front and receives greater reinforcements.

First echelon.

14. a. What type of buildings will the enemy use as strongpoints?

b. What type of buildings will the enemy avoid for use as strongpoints?

a. Solidly constructed buildings with good observation and fields of fire.

b. Wooden buildings.

15. What is the role of the security zone on the urban battlefield?

To halt or delay the attacker and cause him to deploy early; deceiving the attacker as to the location of the main defenses.

16. In a MOUT environment, smoke agents are used extensively to

Conceal the maneuver of men and weapon systems between strongpoints, defensive areas, and separate building that do not have concealed or underground routes between them. Also they deny the attacker observation and aimed fires.

17. In addition to their normal employment, THREAT artillery is deployed

Well forward as direct fire support.

18. Fire planning for THREAT infantry weapons requires what type of combination of fires?

Flanking, interlocking, and layered.

19. What does the political plan of the THREAT force stress?

That a defended building must be a fortress, and the force which is morally stronger and better prepared mentally will be the victor.

20. How may THREAT forces employ frontal (tactical) aviation in a MOUT defense?

To strike concentrations of attacking troops, nuclear delivery means, groups of artillery and forces trying to bypass or encircle an urban area.

## EXTRACT OF FM 90-10

### HOW THE ENEMY DEFENDS

This section describes why and where the enemy defends and examines those aspects of his defense that are different from our own. It covers the organization, planning, and conduct of the defense to include his use of the combined arms in the defense.

The enemy recognizes the political and military importance of the urbanization phenomenon. Threat commanders realize the importance of not only defending built-up areas, but also of incorporating them into the overall defensive plan. The enemy always attempts to establish his defense well forward of an urban area in order to engage and defeat the attacker on the approaches to and flanks of the built-up area.

#### CONTENTS

<u>HOW THE ENEMY DEFENDS</u>
<u>PLANNING THE ATTACK</u>
<u>THE OFFENSIVE BATTLE</u>
The Corps
The Division
The Brigade
The Task Force

The enemy reverts to the conduct of defense ***within*** a built-up area only when:

- Attacking forces break through defenses organized on the approaches and threaten the built-up area proper.
- The built-up area has especially great political, strategic, or economic importance.
- It is necessary to defend a built-up area which is a seaport or other critical communication/transportation complex.

## ORGANIZATION OF THE DEFENSE

The categories of built-up areas contained in Threat literature differ slightly from those described in chapter 1 and provide guidelines for the organization of his defense. Smaller towns and villages of rural areas are incorporated into his defense as strongpoints in accordance with standard defensive doctrine. It is only for those operations conducted in the more populated urban areas that modified techniques are described. The following figure shows how the Threat classifies built-up areas by population and estimated perimeter.

Classification of Built-Up Areas		
POPULATION	SIZE CLASSIFICATION	ESTIMATED PERIMETER
100,000 or more	Large	more than 25 kms
50,000 to 100,000	Average	15 kms to 25 kms
less than 50,000	Small	less than 15 kms

In order to provide commanders sufficient room to maneuver, urban areas are normally included as part of a larger defensive zone. The tactics and weapon systems used are dependent on the characteristics of the central built-up area and the terrain adjacent to it. The key defensive concept is to draw the attacking force into preplanned kill zones and destroy them.

The task of defending an urban area is normally allocated to a motorized rifle division (MRD). The MRD deliberate defense is organized with a security zone and a main defensive belt. Mutually supporting strongpoints are echeloned in depth. Natural and manmade obstacles, as well as the smaller built-up areas are incorporated in the defense to impede the advance of the attacking forces and to canalize them.

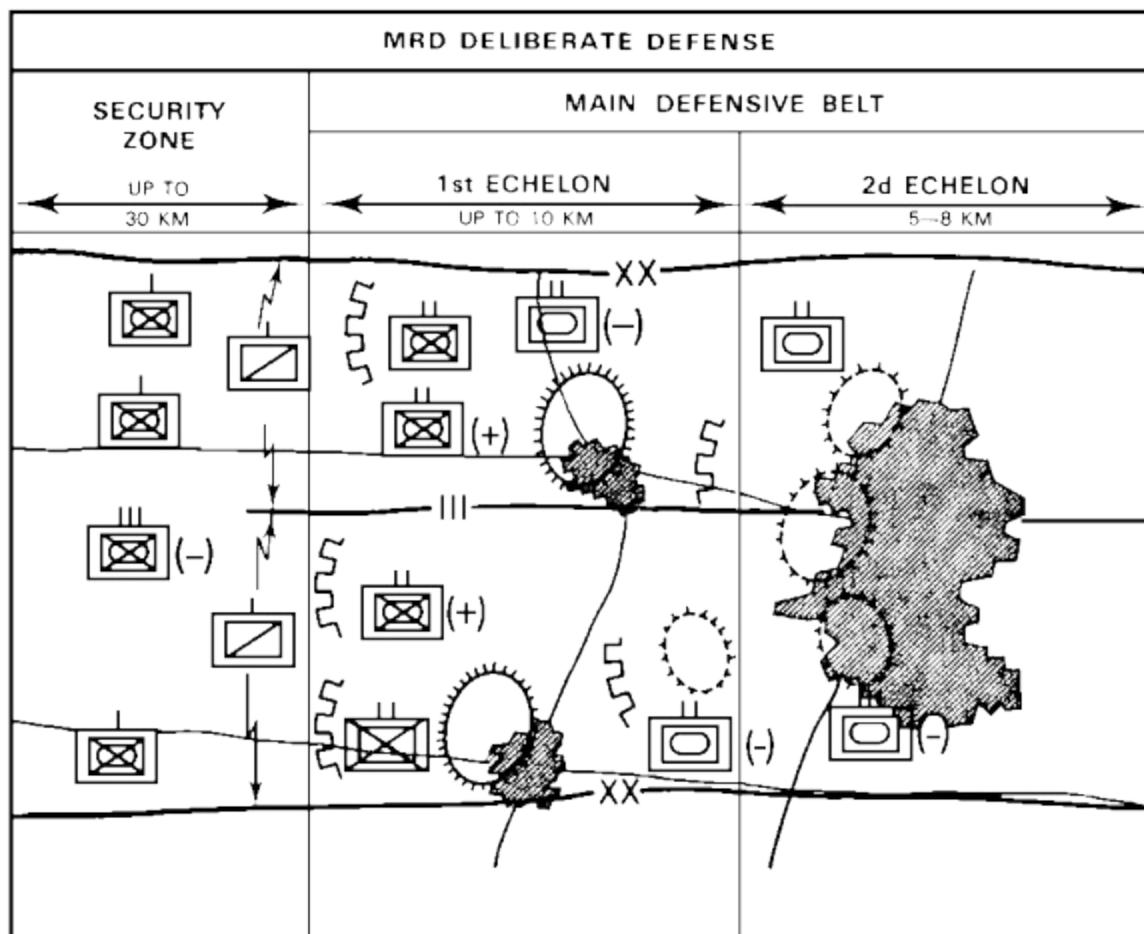
The [figure](#) below illustrates the basic organization of the terrain when the defense of a built-up area is required. The specific frontages and depths of the defending forces are determined by the complexity of the urban terrain, the enemy, and the forces and fire support available to the defender.

## Security Zone

The role of the security zone is not changed on the urban battlefield. Forces are organized to halt or delay the attacker and cause him to deploy early. A motorized rifle division will normally employ its second-echelon motorized rifle regiment (MRR) in this zone which may extend up to 30 km forward of the main defensive belt. The task of deceiving the attacker as to the location of the main defenses is aided by the restrictive nature of the urban terrain and the presence of small built-up areas which may be integrated into the defensive scheme. The battle in the security zone is fought by motorized rifle companies reinforced with AT weapons, artillery, tanks, and engineers.

## Main Defensive Belt

This zone, which may extend up to 15 km in depth, is the backbone of the defense. It is normally organized in two echelons with the built-up area located within the second echelon. Forces in the first echelon will normally consist of two MRRs deployed across a zone 20 to 30 km wide. Each MRR will deploy security elements forward of this zone to slow and canalize the attack force. The mission of the first echelon is to defeat the attack forward of the built-up area. A strongpoint defense integrating urban features and frequent local counterattacks is employed to destroy or repulse the attacker. The first-echelon MRRs will have designated secondary positions on the flanks of and within the built-up areas.



Following withdrawal of forces from the security zone, the second echelon MRR will prepare defensive positions within the built-up area for itself and the first-echelon MRRs. The medium tank regiment will be retained under division control and deployed primarily on the flanks of the built-up area. Elements of this regiment will normally be used to reinforce the first-echelon MRR on the main avenue of approach.

If it is necessary to defend within the built-up area, only a small portion of the available force is used to hold its central area. The MRRs of the division establish their defensive positions on the approaches to the built-up area whenever possible. Since it is unlikely that lengthy preparation time for such operations will be available, the initial defense may be organized based on a detailed map study with only limited personal reconnaissance at the lower levels of command. The layout of the built-up area, the type of structures available, the time of the year, and the climate are important considerations in the planning of the defense.

The defensive battle in the main defensive belt is a combined arms battle fought by the motorized rifle battalion.

## **COMBINED ARMS IN THE DEFENSE OF A BUILT-UP AREA**

### **Motorized Rifle Battalion (MRB)**

Enemy doctrine for the defense of built-up areas emphasizes the importance of the combined arms concept. Motorized rifle units provide the basic element of his urban combat force structure.

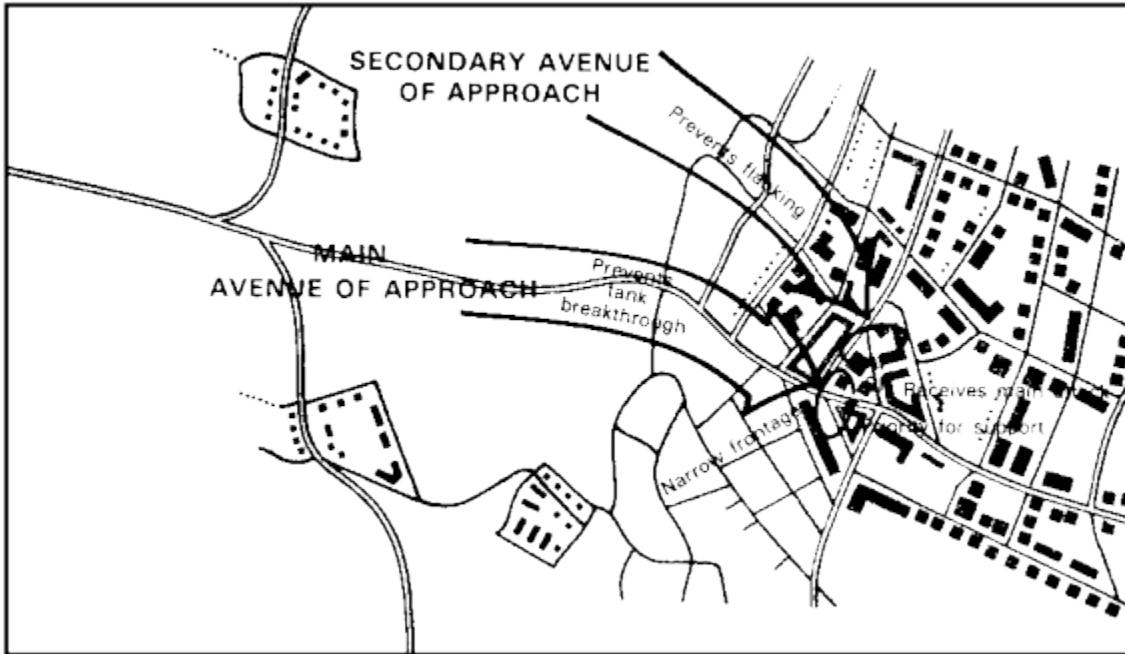
The enemy MRB is the most effective unit for combat in the built-up area because of its inherent mobility, armor protection, and rapid capability to adapt buildings and other structures for defense or as shelters against the effects of nuclear weapons. It coordinates closely with units from other arms, some of which will attach elements, and others of which will be placed in support or will provide security. The MRB will be reinforced by other branches depending on the requirements and conditions expected in various parts of the built-up area.

As a rule the MRB defends as part of the larger, regimental-size unit. It may defend on a main or a secondary avenue of approach and/or be in the first or second echelon or in the reserve.

If the attack penetrates, the MRB must inflict maximum losses, stop further forward movement, and create favorable conditions for the second echelon or regimental reserve to counterattack.

A MRB on the main avenue of approach and in the first echelon:

- Receives the main attack of attacking forces
- Inflicts decisive damage on the assaulting forces to prevent a breakthrough by tanks and infantry.



The MRB in the first echelon covers a narrower front and receives greater reinforcements than one in the second echelon. It will be supported by most of the artillery of the next higher command.

A MRB in the second echelon or on a secondary avenue of approach:

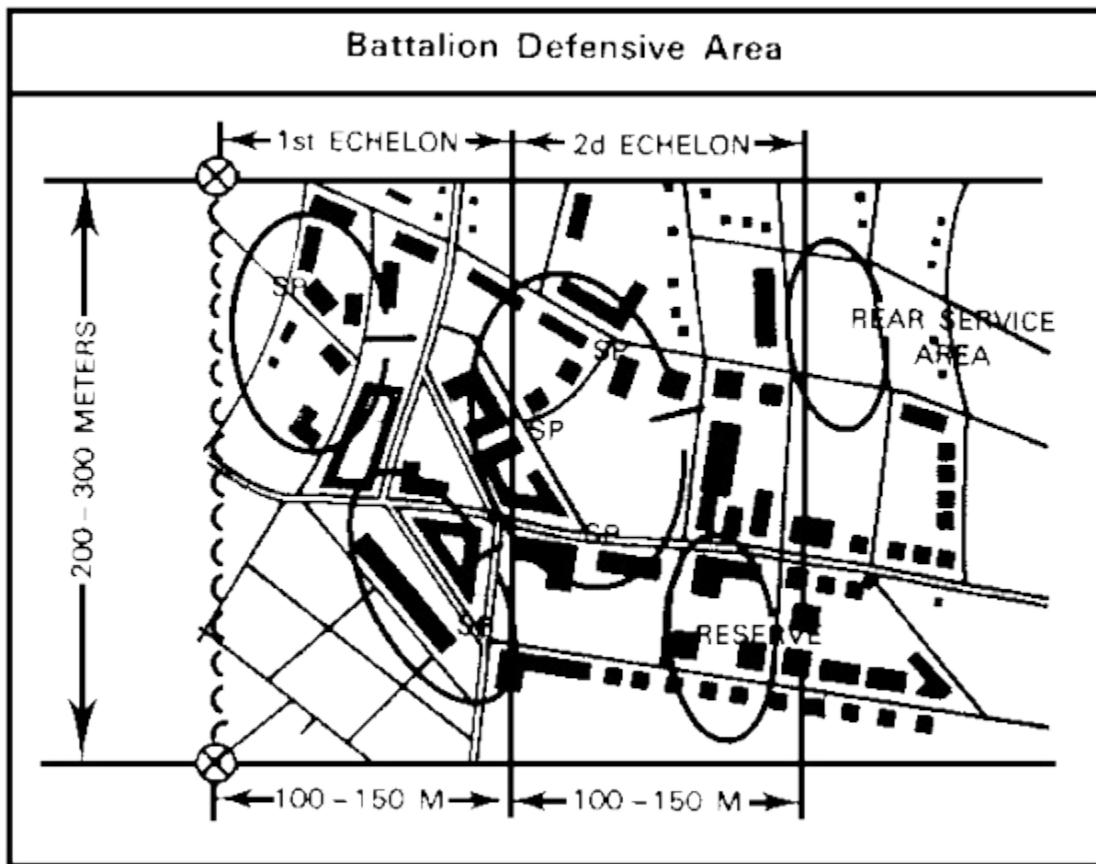
- Prevents flanking/rear maneuvers.
- Holds defended sites and prevents further advances by an attacker that has penetrated the built-up area.
- Conducts counterattacks to restore positions of the battalions in the first echelon.

MRB defenses are generally organized in two echelons to provide greater depth and reserves. Company strongpoints are prepared for perimeter defense and constitute the basis of the battalion defensive position. The reserve is located in a separate strong-point. Ambush locations are established in the gaps between strongpoints. Numerous firing positions for mortars, artillery, and antitank weapons are designated. The rear service area is selected to capitalize on the cover and concealment afforded by the built-up area. Dummy strongpoints are constructed to deceive the attacker. Positions for securing and defending entrances/exits to underground structures and routes of communications are established. Combat security positions are prepared in front of the defensive position of a first-echelon battalion.

The Reserve

- Reinforces/replaces battalions in the first echelon
- Covers breaches caused by enemy nuclear weapons
- Holds sites deep within the defensive positions whose retention is vital to the overall defense.

- Extinguishes or contains fires that endanger friendly forces or limit their operations.
- Conducts rear area security and defeats air-landed forces that are inserted in the rear.



Within a built-up area, a company may defend with mutually supporting fires several buildings prepared for perimeter defense. Each platoon defends one or two buildings within a company strongpoint or a floor of a large building that is defended by a company.

Strongpoints constitute the basis of each defensive position. They are usually prepared in solidly constructed buildings located at intersections, entrances to public squares and parks, or adjacent to bridges, and with observation and prepared fields of fire appropriate to the weapons available. Fires are coordinated between strongpoints. They offer personnel protection against weapons of mass destruction. Communication trenches are prepared within strong-points. In addition, ambushes are set up in the gaps between positions, and wooden structures or other buildings which hinder fields of fire are razed.

Fire planning for **infantry weapons** requires a combination of flanking, interlocking, and layered fires of all types. Weapons are emplaced to provide fires on the approaches to a defensive area, on the

flanks, and in the battalion rear. Fires are tied in with artificial and natural obstacles to cover open areas completely.

Particular attention is paid to antitank fire planning within the built-up area. The enemy recognizes that there will be limited opportunities to place effective fires on the tanks within the city; therefore, weapon positions are carefully selected. Ambushes are prepared along main avenues of armor advance.

- **Tanks** are routinely attached to a MRB for employment in ambushes or to reinforce antitank defenses. They may operate as "roving guns" or be positioned in strongpoints; and, they may be used in ambushes where they are employed primarily against attacking tanks and along expected routes of the main attack.
- **Artillery** carries out most of its missions by firing by direct lay. Artillery units are regularly attached to maneuver companies and platoons.
- **Mortars** of all calibers, with their high-angle fires, ease of transportability, and high rate of fire, are considered to be highly effective in built-up areas.
- **Chemical** defense elements may be attached to the MRB. They perform radiological and chemical reconnaissance in order to detect the effects of NBC weapons employed by the attacker and to determine the degree and limits of contamination.
- **Smoke** agents are used extensively to conceal the maneuver of men and weapon systems between strongpoints, defensive areas, and separate buildings that do not have concealed or underground routes between them. Also they deny the attacker observation and aimed fires.
- **Nuclear** weapons may be used against the attacker's nuclear delivery means and concentrations of forces on the approaches to the city, or against troops who attempt to encircle or bypass the built-up area, or against an attacker who has seized part or all of a built-up area if there are not other weapons available to destroy him.
- **Engineers** attached to the MRB perform standard engineer tasks

## **Party-Political Work.**

The enemy views this as critical to fulfilling the assigned combat mission, the creation of a successful defense, and the regaining of the initiative. Political indoctrination is achieved by timely explanation to personnel of the mission and procedures for its accomplishment. Indoctrination of soldiers, NCOs, and officers in patriotism, courage, and tenacity in defending the built-up area is basic to the party-political efforts.

All fighting men are told that no one has the right to leave the defended location without a specific order to do so. Party members are distributed throughout the fighting units. There must be an "active member" in every separate group of fighting men. He conducts party-political indoctrination and provides the example in combat. Based on the commander's guidance and decision, the Deputy Commander for Political Affairs plans the party-political support for the combat missions. The underlying assumptions to this plan are:

- Every defended building must be a fortress inaccessible to the attacker.
- The force which possesses the stronger moral qualities (e.g., coldness, endurance, and resourcefulness) and knows procedures for fighting in a city will win.

## **BASIC DEFENSIVE CONSIDERATIONS**

The enemy's defense of a built-up area is centrally controlled by the commander, preferably from a command observation post from which he can view the area and communicate with his forces. All available means of reconnaissance are used to determine where the attacker will strike and the location of his main effort. Once this is determined, maximum firepower is continually massed on the approaching attacker.

Dummy positions and alternate strongpoints are also used along the attacker's avenues of approach. Gaps created in the defense are immediately covered by massive fires of all types. During an attacker's artillery preparation, combat equipment and forces are kept in standby readiness in protected positions. When the preparation is lifted, the forces move forward and occupy primary defensive positions from which to repulse the attack.

Company strongpoints constitute the basic element of the built-up area defensive structure. Companies may also occupy a salient on an open flank or behind one of the companies in the first echelon.

Every effort is made during the defense to separate infantry from tanks so that tanks may be attacked and destroyed at short ranges by antitank weapons. Antitank ambushes are prepared at each level. Counterattacks are habitually launched to regain lost positions before the attacker has the opportunity to prepare hasty defenses.

## **PLANNING THE ATTACK**

This section describes urban offensive operations and provides detailed considerations to be applied by US commanders during planning. Readers must understand how the enemy defends and be familiar with US offensive planning as discussed in organizational How-to-Fight manuals.

## **OFFENSIVE OPERATIONS**

The attack of a built-up area, regardless of its size and the level of command involved, should be considered only as the last resort, and only when major advantage accrues to the attacker through its seizure or control.

## LESSON 2

# PLAN AN ATTACK ON URBANIZED TERRAIN AT BATTALION TASK FORCE LEVEL

The task taught in this lesson consists of:

- Determining the tactical impact of urban areas
- Identifying the characteristics of urban offensive operations
- Identifying planning considerations for the attack on an urban area
- Determining the use of artillery and other types of combat support in a MOUT offensive engagement
- Determining tactical considerations for an attack on urbanized terrain at battalion task force level and completing Paragraph 3 of a Battalion OPORD.

**Task:** Plan an attack on urbanized terrain at battalion task force level.

**Condition:** Given extracts of doctrinal literature, an offensive tactical situation for a battalion TF S3, and a series of multiple-choice questions relating to tactical reasoning or tactical situations.

**Standard:** The attack plan will be IAW subcourse text, [FM 90-10](#) and [FM 90-10-1](#) and will include the use of supporting artillery and other types of combat support.

## EXERCISE 1: DETERMINING THE TACTICAL IMPACT OF URBAN AREAS

### Urbanization

Many areas of the world, especially Western Europe, have experienced a massive growth in built-up areas and man-made changes to the natural landscape. These changes significantly affect potential future battlefields.

Avoidance of built-up areas is no longer possible. Rather, military operations on urbanized terrain are an integral part of combat operations and present special opportunities and challenges to the battalion task force commander. MOUT operations pertain to attacking through an area that is interspersed by many small villages and towns, some larger towns, and major urban complexes.

The following example illustrates the effect of urbanization on military operations on urbanized terrain:

- The Meiningen Corridor is a broad, high-speed approach permitting armor forces some freedom to maneuver. Throughout the corridor, however, there are a number of villages and towns flanked by restrictive terrain. To the defender, this corridor offers an in-depth system of instant battle positions in the succession of villages spaced from 2 to 4 kilometers apart. Mutual

support can be achieved through this corridor by integrating village battle positions with adjacent natural terrain obstacles and positions.

- To an attacker, the corridor's urban features represent a series of man-made obstacles. Advancing forces that attempt to bypass individual villages and towns are susceptible to flank attacks. The attacker may be required to conduct frequent combined arms attacks which greatly reduce offensive momentum and increase battle losses.

### **Definition of a Built-up Area**

A built-up area is any group of buildings designed for habitation or commercial purposes, such as a village, town, or city. Built-up areas have become battle areas, because their locations control lines of communication, their buildings provide shelter against extremes in weather, or because of their political or psychological value. The seizure of a strongly defended built-up area is a costly and time-consuming operation.

### **Categories of Built-up Areas**

There are four different categories of built-up areas. Each presents different problems and opportunities to tactical commanders. These categories are:

- Villages (population of 3,000 or less)
- Strip areas (generally interconnecting built-up areas between villages and towns along roads and valleys)
- Towns and small cities (population up to 100,000 and not part of a major urban complex)
- Large cities with associated urban sprawl (population up to millions, covering 100 or more square miles).

**Villages.** The typical village especially in Europe, is characterized by stone, brick, or concrete stores, houses, and barns in the village center with a number of more modern and more lightly constructed houses on the outskirts. Villages provide ready-made cover for platoons and company teams and, in some cases, even the task force. They can be readily developed into strongpoints through the application of obstacles, carefully sited weapons systems, preplanned fires, and improved fields of fire.

**Strip Areas.** Areas where houses, stores, and factories have grown up along roads or down valleys between towns and villages. These areas provide the same advantages to the defender as those discussed for villages.

**Towns and Small Cities.** Towns and small cities that have a definable limit present different problems. The outlying terrain can dictate the value of the town within the operational concept of the force. If the town can be easily bypassed and sufficient roads exist around the area to support operations, then it is of limited value operationally. The town's operational worth is high if the adjacent terrain is restrictive, if it provides good supporting defensive positions, and if routes of communication pass through it. The decision to attack a town or city must be made by corps or division commanders because of the forces required and the time consumed. Further, the decision to attack a city may be tantamount to a decision to destroy it.

**Large Cities/Major Urban Complexes.** Major urban complexes such as FRANKFURT/MAINZ/HANAU or the STUTTGART area are so large that they can not be captured or defended in their entirety, and they cannot be avoided by bypassing. The commander has no choice but to conduct the whole range of military operations within them: attack, defense, and retrograde. These areas have the characteristics of a concrete jungle, and as in any jungle, visibility is reduced and cover and concealment abound.

Characteristics of the downtown area include:

- Multi-storied with few or no gaps between buildings
- Streets and lanes are narrow
- Construction usually of steel-reinforced concrete
- Requires building by building clearance
- Meticulous centralized planning
- Large number of troops
- Decentralized control
- Control is difficult
- Narrow frontages.

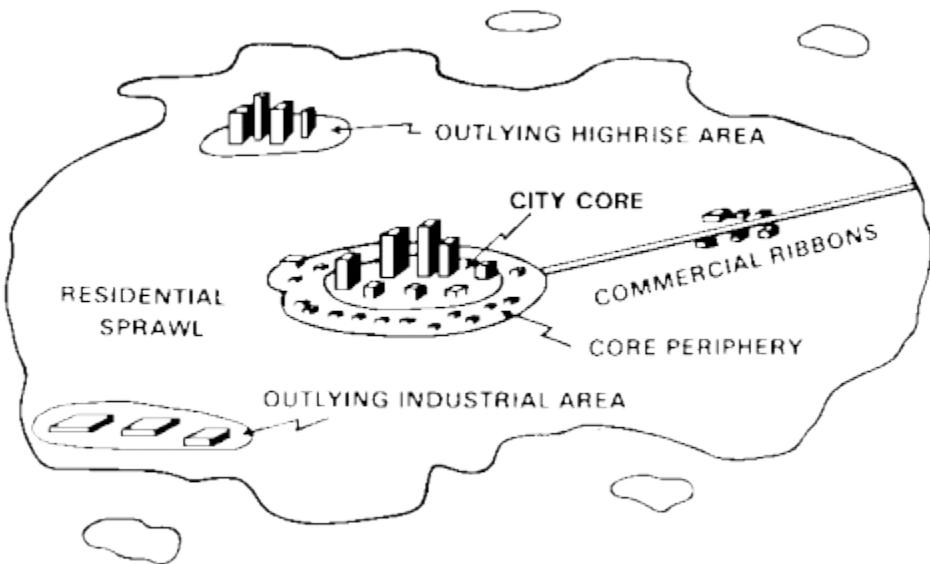
Characteristics of suburban areas include:

- Wide avenues, lawns, parks, trees, etc.
- Normally of lighter construction, one or two stories
- Fronts become broader
- Streets are wider
- The use of cover - care must be taken
- Many different types of tactics can be used
- Flexibility is the key in this type of area.

### **Urban Terrain Analysis at Battalion Level and Below**

**Building Characteristics.** Most urban areas resemble the generalized model shown in [Figure 2-1](#). Urban areas differ in their location, size, and history. Towns, for example, have lower buildings than cities. They may not have developed any outlying highrise areas. In general, however, an observer flying over any city or town will notice a resemblance to this urban model, especially if the area has been redeveloped in the past 30 years.

FIGURE 2-1. TYPICAL URBAN AREA



Each of the model's regions has distinctive characteristics. Outlying industrial areas and residential sprawl, for instance, consist of low buildings, one to three stories tall. Buildings are detached and arranged in irregular patterns along the streets. There are many open areas.

The core's periphery consists of narrow streets (12 to 20 meters wide) with continuous fronts of brick and heavy-walled concrete buildings. The height of buildings is generally uniform: two or three stories in small towns, five to ten stories in large cities.

In most cities, the core has undergone more recent development than the core periphery. As a result, the two regions are often quite different. Typical city cores of today are made up of highrise buildings, which vary greatly in height. Furthermore, modern urban planning allows much more open space between buildings than has been the case in the past and is still the case in core peripheries. Outlying highrise areas are dominated by this construction style to an even greater degree than city cores.

Commercial ribbons are rows of stores, businesses, etc., built along either side of major streets through the built-up areas. Generally, those streets are 25 meters wide or wider. The buildings are uniformly two to three stories tall, about a story taller than the dwellings found behind them.

In addition to the height of buildings already mentioned, each of the urban regions also contains characteristic types of buildings.

The two basic construction types are mass (or frameless) and framed. Mass construction buildings are those in which the outside walls support the weight of the building and its inhabitants. The oldest mass construction buildings are usually made of thick brick or stone walls. Mass construction buildings normally have thicker walls and fewer windows than framed buildings.

Modern types of mass construction buildings are wall and slab structures such as many modern apartments and hotels, and tilt-up structures, commonly used for industry or storage.

Framed buildings are those supported by a skeleton of columns and beams. They are usually taller than frameless buildings. The exterior walls are non-load bearing, and are referred to as either heavy clad or light clad. Heavy-clad walls were common when framed buildings were first introduced. These walls are made of brick and block, and in some cases are almost as thick as frameless brick walls, although not as protective. Light-clad walls are more modern, and may consist of nothing more than glass.

### **Terrain Aspects of Buildings**

**Observation and fire.** Buildings on the edge of a town often provide better fields of fire than buildings in the interior. In the town itself, tall buildings with many windows often provide the best fields of fire, especially if the buildings are separated.

**Cover and concealment.** Buildings with thick walls and few, narrow windows provide the best cover and concealment. Roofs provide little protection; troops are better protected in the upper stories than right under the roof. (An exception to this rule is the parking garage.) Floor layouts with many small rooms provide more protection than floor layouts with few, large rooms. Interior load-bearing walls provide good protection. Non-load-bearing walls usually provide better protection the older they are.

**Obstacles.** Doors and fire barriers are common in commercial buildings. They become obstacles if they are shut. Furniture and appliances can also become obstacles in a building. Barbed wire, mines, etc., can be used effectively inside a building, because movement is channeled.

**Key terrain.** Key "terrain" in a building includes entrances, hallways, and stairs. Troops that control those places control the building. An attacker, for instance, will be able to isolate the defender so that he cannot escape or be reinforced. A defender will be able to deny the building to the attacker, or make the seizure of the building so costly that the attacker is forced to bypass it. Another key feature is a room which is large enough to permit firing of recoilless weapons, Dragons, or TOW's from the inside. Balconies and mezzanines with enough backblast area are particularly useful, as they provide an elevated platform for those weapons.

**Avenues of approach.** The best way to attack a building is from the top down. The most important avenue of approach to look for is therefore one that leads most quickly to the top. If there is an outside way to the top which has cover and concealment, that is the best way into the building. Examples of such routes are fire escapes, drainpipes, or adjacent buildings. If there is no such route, attacking troops must use the stairs, get to the top of the building, and clear from the top down. Defending troops will likely control the elevator, so an attacker will find the stairs a better approach.

This is a guide only. Leaders should evaluate their own buildings based on that information.

### **Sources of Urban Information**

Operations in urban terrain require detailed intelligence. There are many sources of information available to you as a battalion staff officer. Below are a few that are considered available and feasible.

- Intelligence information from higher headquarters
- Military maps (show details of terrain adjacent to urban area)

- Civilian maps (road, and tourist)
- Local civilians
- Own troops familiar with the area
- City directories
- Telephone books
- Government plans and maps (engineer, police, fire)
- Air photos
- Reconnaissance patrols
- Tourist information centers.

An extract of [FM 90-10](#) contains additional information on urbanization, built-up areas, and building and street patterns. Read these pages now before proceeding to [Practical Exercise 1](#).

## LESSON 2

### PRACTICE EXERCISE 1

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. Fill in the missing blanks on the chart below.

Type of Urban Area	Population
a. Village	<input type="text"/>
b. <input type="text"/>	4,400
c. <input type="text"/>	90,000
d. Large city	<input type="text"/>

2. Describe the typical European village.

3. What are commercial ribbons?

4. The two basic construction types of buildings are

 and .

5. Describe the general characteristics of a Type A building and street pattern.

6. The building and street pattern that consists of multi-storied apartments, separated large open areas, and one-story buildings is Type:

- A. A.
- B. B.
- C. C.
- D. D.

7. Describe the general characteristics of a Type C building and street pattern.

8. List six sources of urban information.

# PRACTICE EXERCISE 1

## ANSWER KEY AND FEEDBACK

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1. Fill in the missing blanks on the chart below.

Type of Urban Area	Population
a. Village	<u>Less than 3,000.</u>
b. <u>Town.</u>	4,400
c. <u>Small city.</u>	90,000
d. Large city	<u>Greater than 100,000.</u>

2. Describe the typical European village.

Characterized by stone, brick, or concrete stores, houses, and barns in the village center with a number of more modern and more lightly constructed houses on the outskirts.

3. What are commercial ribbons?

Commercial ribbons are rows of stores, businesses, etc., built along either side of major streets through the built-up areas.

4. The two basic construction types of buildings are

\_\_\_\_\_ and \_\_\_\_\_.

Mass (frameless) and framed.

5. Describe the general characteristics of a Type A building and street pattern.

Typical old inner city construction with narrow winding streets radiating in an irregular manner from a central area. The buildings are located close together and frequently along the edge of roadways.

6. The building and street pattern that consists of multi-storied apartments, separated large open areas, and one-story buildings is Type:

- A. A.
- B. B.
- C. C.
- D. D.

7. Describe the general characteristics of a Type C building and street pattern.

Consists of rowhouses or single dwellings with yards, gardens, trees, and fences. Street pattern is normally rectangular or curving.

8. List six sources of urban information.

Higher headquarters

Military maps

Civilian maps

Local civilians

Our troops familiar with the area

City directories

Telephone books

Government plans and maps

Air photos

Reconnaissance

Tourist information centers

## EXERCISE 2: IDENTIFYING THE CHARACTERISTICS OF URBAN OPERATIONS

### Introduction

The attack of an urban area, regardless of its size and the level of command involved, should be considered only as the last resort, and only when major advantage accrues to the attacker through its seizure or control.

Attacks against urban areas may be launched for the following reasons:

**Gain a Critical Objective.** Selected built-up areas will be attacked to gain a critical objective or to deny an advantage to the enemy. The objective may be a vital bridge, transportation facilities that are required to sustain future combat operations, or strategic industrial or vital communications facilities.

**Rupture the Defense.** The enemy will frequently prepare built-up areas as strongpoints to gain favorable defensive advantages. The elimination of selected strongpoints may be required in order to break through his defensive system.

**Facilitate Future Operations.** Built-up areas will frequently preclude bypass. Commanders will have to overcome those obstacles that restrict or control their avenues of approach in order to continue the attack.

**Deal the Enemy a Decisive Psychological Blow.** The two basic forms of offense, the hasty and deliberate attack, are applicable in urban terrain. In the attack of a large built-up area, a battalion or company normally participates as part of a larger force and may be directed to a specific mission; for example, attack, isolate, contain, provide security, or act as a reserve.

### Hasty Attack

The hasty attack is the most desirable, because an enemy who is allowed to prepare himself in urban terrain will rapidly gain strength by reinforcing the terrain. Hasty attacks are directed against lightly defended built-up areas, and they may be conducted from the march with shock action and firepower. This action attempts to strike a fatal blow to the enemy's defenses before he can reorganize or reinforce his defense. When conducting a hasty attack in a MOUT environment, three tasks are essential to success:

- Locate a weak spot or gap in enemy defenses
- Fix forward enemy elements
- Rapidly move through or around the gap or weak spot to be exploited.

### Deliberate Attack

Deliberate attacks are normally conducted when the enemy has established a strong defensive position, when the urban area is large or severely congested, or when surprise is lost. The conduct of a deliberate attack involves three phases: isolation, securing a foothold, and clearing the area. One or more phases may be planned for and accomplished concurrently, based on the commander's intent, enemy strength, size and construction of the urban area, and troops and equipment available. It is imperative that each step progresses without hesitation into and through the clearance of the designated area. A task force or

company's forward progress insures that the momentum of the attack is maintained and that continuous pressure on the enemy will prevent his orderly withdrawal.

**Phase One: Isolation.** This is done by securing dominant terrain around the built-up area and restricting the enemy's ability to resupply or reinforce. The size of the force required depends on the availability of dominant terrain and observation. Isolation becomes the overall concept of the operation if the mission is only to contain the enemy and prevent a possible withdrawal.

**Phase Two: Secure a Foothold.** A foothold should be secured in the urban area that provides cover from direct enemy observation and fire and allows for forward displacement of attacking forces and equipment (including forward supply points and aid stations). This action is required each time the attacker moves from a position of poor cover and concealment to a more concealed terrain position; for example, from open terrain to a residential area, or from a residential area to a business district. The foothold is normally one or two city blocks assigned to a team as an intermediate objective. The inferior cover and concealment should be offset by isolating the objective with fire and smoke or by attacking during period of limited visibility.

**Phase Three: Clear the Area.** This will always be the last phase, and it can be done either as a systematic clearance or a rapid advance.

- **Rapid Advance** - A rapid advance may be used when a critical objective, such as an airfield, public utility bridge, installation, or building needs to be secured quickly. A strong, rapid advance force drives toward the critical objective as quickly as possible, clearing only that part of the zone necessary to sustain the advance. As the force moves forward, the remainder of the attacking force clears the zone (including the areas hastily cleared by the rapid advance). Disruption of the enemy's system of defense by the rapid advance force should make zone clearance easier. Ideally, the rapid advance force moves through an area of known enemy weaknesses. Local air superiority and suppression of enemy air defense weapons may permit helicopters to insert the rapid advance force on or near the critical objective.
- **Systematic Clearance** - If a critical objective has not been identified, or if a strong enemy or densely built-up area prevents a rapid advance, the systematic clearance may be used. It may also be used when the objective is simply to clear the urban area. A main attack is made by one company team placed on a narrow front against either a weakness in the enemy position or an area of lightly constructed buildings. Remaining teams move along the flanks of the main attack and advance more slowly than the main attack. Either team can enter the corridor cleared by the main attack to assault the flanks of a strong enemy force. The width of the zone will vary with the density of buildings. In suburbs each team may cover several blocks; in a town or city with large, heavily constructed buildings, each team should be assigned a zone no more than one block wide. Boundaries should be placed along the sides of streets to give one unit responsibility for the entire street.

### **Defended Strip Developments**

Defended strip developments must not be permitted to slow the momentum of team and task force attacks. These developments are not easily bypassed, and therefore, the alternative of not attacking

seldom exists. Strip areas should normally be penetrated at their narrowest point by a fast-moving armor-heavy force supported by a heavy concentration of direct and indirect fire. If the enemy does not withdraw after the penetration, these areas must be cleared by follow-on forces.

An extract of [FM 90-10-1](#) contains additional information on the [conduct of the hasty and deliberate attack](#) against an urban area. Read these pages now before proceeding to [Practical Exercise 2](#).

## LESSON 2

### PRACTICAL EXERCISE 2

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. When are deliberate attacks normally conducted in a built-up area?

2. The three phases or steps of a deliberate attack are:

, , and  

3. When conducting a hasty attack in a MOUT environment, what three tasks are essential to success?

4. Which phase of the deliberate attack involves seizing terrain that dominates the area so the enemy cannot supply or reinforce its defenders?

5. A hasty attack is conducted when the overriding consideration is \_\_\_\_.

6. What is the purpose of securing a foothold during a deliberate attack?

7. Which is the last phase in a deliberate attack?

8. After isolating an urban area, the next phase of your attack will be to

9. Matching: In the blank before each element of Column I, place the number of the corresponding alternative of Column II. Each letter may be used more than once.

Column I

Column II

a. Directed against lightly defended urban areas.

1. Deliberate attack.

b. Conducted when the urban area is large or severely congested.

2. Hasty attack.

c. Locate a gap or weak point in enemy defenses.

d. Conducted when enemy defensive positions are extensive.

e. Characterized by thorough reconnaissance, planning, and coordination.

f. Overriding consideration is the avoidance of risks.

g. Speed is essential.

10. a. Where should strip areas normally be penetrated?

b. By what type of force?

a.

b.

11. The extent to which an urban area must be cleared depends on the

, , and the

12. When a critical objective, such as an airfield, needs to be secured, what type of clearance should be used?

13. When enemy positions are strong or the urban area is severely congested what type of clearance should be used?

14. When will isolation become the overall concept of the operation?

## PRACTICAL EXERCISE 2

### ANSWER KEY AND FEEDBACK

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- When are deliberate attacks normally conducted in a built-up area?

When enemy positions are well-prepared, when the urban area is large or severely congested, or when surprise has been lost.

- The three phases or steps of a deliberate attack are: Isolate the area (objective); secure a foothold; clear the area.

- When conducting a hasty attack in a MOUT environment, what three tasks are essential to success?

Find a weak point or gap in enemy defenses  
Fix forward enemy elements  
Quickly move through or around the weak point or gap.

- Which phase of the deliberate attack involves seizing terrain that dominates the area so the enemy cannot supply or reinforce its defenders?

Isolating the area.

- A hasty attack is conducted when the overriding consideration is \_\_\_\_.

The need to retain momentum.

- What is the purpose of securing a foothold during a deliberate attack?

Seizing an intermediate objective that provides cover from enemy fire and a place for attacking troops to enter the urban area.

- Which is the last phase in a deliberate attack?

Clearing the area.

- After isolating an urban area, the next phase of your attack will be to

Secure a foothold.

9. Matching: In the blank before each element of Column I, place the number of the corresponding alternative of Column II. Each letter may be used more than once.

Column I

Column II

<u>2.</u> a. Directed against lightly defended urban areas.	1. Deliberate attack.
<u>1.</u> b. Conducted when the urban area is large or severely congested.	2. Hasty attack.
<u>2.</u> c. Locate a gap or weak point in enemy defenses.	
<u>1.</u> d. Conducted when enemy defensive positions are extensive.	
<u>1.</u> e. Characterized by thorough reconnaissance, planning, and coordination.	
<u>1.</u> f. Overriding consideration is the avoidance of risks.	
<u>2.</u> g. Speed is essential.	

10. a. Where should strip areas normally be penetrated?

b. By what type of force?

- a. At their narrowest point.
- b. A fast-moving armor-heavy force.

11. The extent to which an urban area must be cleared depends on the Mission, enemy situation, and the terrain in that area.

12. When a critical objective, such as an airfield, needs to be secured, what type of clearance should be used?

Rapid advance.

13. When enemy positions are strong or the urban area is severely congested what type of clearance should be used?

Systematic clearance.

14. When will isolation become the overall concept of the operation?

If the mission is only to contain the enemy and prevent a possible withdrawal.

## **EXERCISE 3: IDENTIFYING PLANNING CONSIDERATIONS FOR THE ATTACK ON AN URBAN AREA**

A plan for the attack on a well-defended urban area must be based on the mission, enemy terrain, and troops available (METT). As in any attack, the plan must have a scheme of maneuver and a plan of fire support. These are developed concurrently and are closely integrated. The plan must also cover the details of security, combat service support, and communications.

### **Scheme of Maneuver**

In an attack on a large urban area, a battalion may participate as part of an attacking brigade. In that case, the battalion may have to isolate the objective or seize a foothold. If the objective is a smaller urban area, a battalion or a company may accomplish the entire mission independently, assigning subordinate tasks to its companies or platoons.

### **Fire Support Plan**

Extensive air and artillery bombardment may precede the ground attack of an urban area. The attacker's supporting fire helps him by suppressing the defender's fire, destroying his positions, and restricting his movement.

Use of TACAIR and artillery in areas having heavy-clad construction will make rubble, which will restrict the movements of attacking troops. For that reason, an artillery preparation should be short and violent, like "time on target" (T.O.T.). Assaulting troops must follow the artillery fire closely to exploit the dazed state of the defenders. Supporting fire during the foothold phase of an attack suppresses enemy weapons while the maneuver units move to their objectives. Because indirect fire is less effective in urban areas, attackers use tanks, CEV's, or direct-firing artillery pieces to provide fire support.

### **Control Measures**

The coordination and control of forces and fires is greatly complicated by the restrictive nature of the urban environment. To help offset control problems caused by poor communications, restricted observation, high noise levels, and limited freedom of movement, the commander must prepare a detailed plan with more restrictive control measures for decentralized execution at the lowest level. Thus, because of the basic nature of urbanized terrain, planning and control must be centralized but execution must be decentralized.

### **Objectives**

While dominant features that provide observation or physical control over access routes through or around the built-up area remain important, additional considerations must be given to its facilities and man-made objects. Communication networks, whether vehicular, rail, nautical, or telephonic/telegraphic, play an increasingly significant role.

Objectives are relatively shallow. Initial objectives to gain a foothold are usually located on the outer edge of the built-up area; and when occupied, they provide concealment and cover for the attacking forces. In Phase II (seizure of a foothold) the battalion normally assigns companies the first block of buildings as intermediate objectives. An intermediate objective may be assigned by any commander

when its seizure is essential to the accomplishment of the mission. When an enemy cannot be bypassed, the assignment of intermediate objectives will frequently be required. When feasible, final objectives are located on the exit side or beyond the built-up area. Key buildings or groups of buildings or critical areas along the route of attack simplify the assignment of objectives and facilitate reports of their seizure. As the attacker does not bypass buildings and take a chance of being attacked from the rear, it is necessary to enter each building during the progress of the attack. Buildings will be assigned as objectives to rifle squads, and if the buildings are large enough, to rifle platoons or companies.

### **Phaselines**

Phaselines are routinely employed to enhance control by regulating the advance of attacking forces. Phaselines may be used in lieu of objectives. Principal streets, rivers, canals, and trolley and railroad lines which are easily identified, are appropriate for use as phaselines. When phaselines are used, they should be placed on the near side or friendly side of the feature selected and not down the center or on the far or enemy side. Phaselines will be used frequently as intermediate objectives.

### **Boundaries**

At brigade level and below, boundaries are habitually used to control fires and designate areas of responsibility. In urban areas of semi-detached construction where observation and movement are less restricted, boundaries are normally established in alleys or within a block of buildings to insure that both sides of a street are included in the zone of one unit. In block type areas where maneuver space does not exist within the block, boundaries are drawn in the street. However, they are drawn on the side of the street so that the street inclusive is included in the zone of one unit. Never split a street between units. Zones of action are narrower within urban areas due to the terrain and tactical necessity for control.

### **Checkpoints and Contact Points**

Street corners, buildings, railway crossings, bridges, or other easily identified features may be designated as checkpoints or contact points. These points facilitate reporting locations and may identify specific points where the commander desires units to make physical contact.

### **Formations and Frontages**

Frontages assigned to units for the attack of a built-up area will depend upon the enemy strength, size of buildings, and resistance anticipated. Frontages assigned to units must be commensurate with their capabilities. Companies normally attack on a 1- to 2-block front and battalions a 2- to 4-block front. Each assigned frontage is based upon the average city block being approximately 175 meters wide.

The formation used in the attack depends on the width and depth of the zone to be cleared, the character of the area, enemy resistance, and the formation adopted by the next higher command. Normally, the formation of the battalion will provide for two companies in the attacking echelon. Consideration should be given to leading the foothold phase with tanks when available.

### **Reserves**

The size and composition of the reserve should parallel that of the main attack. The reserve should be mobile and prepared to influence the action. Reserve forces are kept close to the attacking echelon,

because restricted routes of movement may increase the time required for their commitment to action. Concealment and cover in the built-up area favors positioning of the reserve closely behind the attacking echelon.

If a company reserve is available, it will normally follow within the same block so that it can immediately influence the attack. Battalion reserves normally follow 1 to 2 blocks to the rear of the company reserve making the main attack.

The reserve is employed to:

- Exploit a weakness or success
- Reinforce the main attack by fire or by attacking from another direction
- Conduct detailed clearance of bypassed enemy positions
- Conduct security missions as required
- Insure the mission of an attacking units.
- Maintain contact with adjacent units.

### **Employment of Tanks and Infantry**

Tanks may support by fire when lead units are seizing a foothold. In house to house and street fighting, tanks move down the streets, protected by the infantry, and support them by firing their main guns and machineguns into enemy positions or OP's. The tank is the most effective weapon for heavy fire against structures. Tanks with dozer blades can be used to clear rubble.

Tanks are, however, vulnerable in urban areas. Streets and alleys constitute ready-made firing lanes and killing zones for defenders. All vehicular traffic is greatly restricted, canalized, and vulnerable to ambush and short-range attack by various weapons. Tanks are at a disadvantage, because their main guns cannot be depressed or elevated sufficiently to fire into basements or upper floors of buildings at close range. However, the infantry fighting vehicle (BIFV) with +60 to -10 degrees elevation of the 25mm automatic gun and 7.62mm coax machinegun, has a much greater capability in this role. With firing port weapons, the BIFV is also capable of placing suppressive fire at ground level to the flanks and rear simultaneously. A tank is restricted in its ability to provide this support.

In movement down narrow streets or streets with narrow paths through the debris, dismounted infantry should move ahead of the tanks, clearing the buildings on each side. When needed, the tanks come up to places secured by the infantry to hit suitable targets. When a section of the area is cleared, the infantry again moves forward to clear the next section. Due to the restricted movement and the limited observation of button-up tanks, the infantry must clear the route in advance of the tanks. The tanks and infantry should use the traveling overwatch movement technique. Infantrymen communicate with the tank crews using the external telephone.

For movement down wider streets or streets not choked with rubble, the lead infantry unit should have a section of attached tanks, one tank on each side of the street. Other tanks should move behind the infantry and fire at targets in the upper stories of the buildings. The infantry can secure the forward movement of the lead tanks, while the rearward tanks overwatch the movement of the lead units.

Some streets are too narrow for that type of tank support. If an infantry unit must travel them, it must use single tanks for support. Those tanks will move and shoot as described above.

A battalion may have a CEV or a number of artillery pieces attached. Those weapons should be used for direct fire in the same way as tanks. They should be carefully used against targets which other weapons cannot destroy. Great care should be taken to secure them by assigning an infantry squad or fire team to each gun for close-in security.

Where feasible, tanks may drive inside buildings or behind walls for protection from enemy antitank fire. Buildings should first be cleared by the infantry and checked to see if the ground floor will support the tank or that there is no basement where the tank can become trapped. When moving, all bridges and overpasses should be checked for mines and boobytraps and for load capacity. Specific infantry elements should be assigned to protect specific tanks.

### **Security**

Due to the nature of urban combat, it is necessary to increase overall security precautions for attacking forces while operating in highly restrictive areas. It is also essential to provide security forces to escort combat service support and combat support units and to monitor, patrol, and guard possible infiltration routes. Additionally, measures must be taken to guard against sabotage, guerilla warfare, and intelligence-gathering by a hostile population.

The problem of controlling and administering to civilians usually accompanies urban combat. A population swollen by refugees will further complicate the problem. Friendly local authorities should be used whenever possible to control the civilian population. In all cases the movement of civilians is kept to a minimum.

### **Looting**

Built-up areas present many opportunities for looting. As men acquire loot, they discard needed equipment, which results in an overall loss of combat efficiency. No matter how well-trained or well-disciplined a unit may be, troops will loot unless precautions are taken in advance. The practice of looting detracts from the soldier's alertness, reduces his initiative and efficiency, and may delay the progress of the attack. All leaders must insure that orders against looting are obeyed and that violators are promptly and appropriately punished.

An extract of [FM 90-10-1](#) contains a further discussion of planning considerations for the attack of an urban area. Read these pages now before proceeding to [Practical Exercise 3](#).

## LESSON 2

### PRACTICE EXERCISE 3

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. If the objective is a small urban area, a battalion will usually attack:
  - A. As part of the brigade.
  - B. With an isolated platoon.
  - C. Independently.
  - D. With dismounted infantry.
2. In an urban area that contains heavily constructed buildings, what type of artillery preparation should be used?

3. Because indirect fire is less effective in urban areas, what weapons can be used to provide direct fire support?

4. True or False: Objectives within an urban area are relatively deep.

5. When phaselines are used on urban terrain, where should they be placed?

6. To help offset control problems caused by limited freedom of movement on the urban terrain, as the commander, what must you prepare during the planning phase of your operation?

7. a. Because of the basic nature of urbanized terrain, planning and control must be:

a. Centralized b. Decentralized.

b. Execution must be:

a. Centralized b. Decentralized.

8. Small buildings will be assigned as objectives to rifle:

- A. Squads.
- B. Platoons.
- C. Companies.
- D. Battalions.

9. At battalion level, what are boundaries used for?

10. a. In block type areas where movement is restricted, where are boundaries drawn?

b. When designating boundaries, what must never be split?

11. What are the functions of checkpoints and contact points?

12. a. Within an urban area, where the average block is 175 meters wide, what is the width of the frontage normally assigned to company teams?

b. To battalion task forces?

13. List four missions of the reserve in an attack on urban terrain.


14. In terms of firing at targets, how are tanks at a disadvantage in an urban area?

15. What weapon system used on urban terrain has the capability to fire into upper floors of buildings by using its 25mm automatic gun and 7.62mm coax machinegun?

16. In movement down narrow streets, what elements should lead?

17. In relation to security, what domestic problems usually accompany urban combat?

## PRACTICE EXERCISE 3

### ANSWER KEY AND FEEDBACK

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1. If the objective is a small urban area, a battalion will usually attack:
  - A. As part of the brigade.
  - B. With an isolated platoon.
  - C. Independently.
  - D. With dismounted infantry.
  
2. In an urban area that contains heavily constructed buildings, what type of artillery preparation should be used?  
Short and violent, like "time on target."
  
3. Because indirect fire is less effective in urban areas, what weapons can be used to provide direct fire support?  
Tanks, CEV's, or direct-fire artillery pieces.
  
4. True or False: Objectives within an urban area are relatively deep.
  
5. When phaselines are used on urban terrain, where should they be placed?  
On the near side or friendly side of the feature selected.
  
6. To help offset control problems caused by limited freedom of movement on the urban terrain, as the commander, what must you prepare during the planning phase of your operation?  
Prepare a detailed plan with more restrictive control measures for decentralized execution at the lowest level.
  
7. a. Because of the basic nature of urbanized terrain, planning and control must be: Centralized  
b. Execution must be: Decentralized
  
8. Small buildings will be assigned as objectives to rifle:
  - A. Squads.
  - B. Platoons.
  - C. Companies.
  - D. Battalions.
  
9. At battalion level, what are boundaries used for?  
To control fires and designate areas of responsibility.

10. a. In block type areas where movement is restricted, where are boundaries drawn?

In the street, however, they are drawn on the side of the street so that the street included in the zone of one unit.

b. When designating boundaries, what must never be split?

A street between units.

11. What are the functions of checkpoints and contact points?

To aid in reporting locations and controlling movement; to help adjacent units maintain lateral contact.

12. a. Within an urban area, where the average block is 175 meters wide, what is the width of the frontage normally assigned to company teams?

1 to 2 blocks.

b. To battalion task forces?

2 to 4 blocks.

13. List four missions of the reserve in an attack on urban terrain.

Exploit a weakness or success

Reinforce the main attack by fire or by attacking from another direction

Conduct detailed clearance of bypassed enemy positions

Conduct security missions as required

Insure the mission of an attacking element

Maintain contact with adjacent units.

14. In terms of firing at targets, how are tanks at a disadvantage in an urban area?

Their main guns cannot be depressed or elevated sufficiently to fire into the basements or upper floors of buildings at close range.

15. What weapon system used on urban terrain has the capability to fire into upper floors of buildings by using its 25mm automatic gun and 7.62mm coax machinegun?

The infantry fighting vehicle.

16. In movement down narrow streets, what elements should lead?

Dismounted infantry.

17. In relation to security, what domestic problems usually accompany urban combat?

The problem of controlling and administering to civilians.

## **EXERCISE 4: DETERMINING THE USE OF ARTILLERY AND OTHER TYPES OF COMBAT SUPPORT IN A MOUT OFFENSIVE ENGAGEMENT**

### **Scout Platoon**

The scout platoon may be used to screen an exposed flank or provide rear area security by patrolling previously cleared areas. Its capability for reconnaissance and security is somewhat reduced by the buildings in the area. The scouts can also act as a portion of the isolating force and help isolate a village or small town. Scouts must be prepared to dismount and go into buildings either for reconnaissance or to set up observation posts.

### **Antitank Platoon**

The long-range fires of the antitank platoon of a mechanized infantry battalion can be used on terrain on the outskirts of an urban area to isolate it or support the attack while a foothold is being secured. Within the urban area, antitank weapons are primarily used to defeat tanks. Each has a limited capability against bunkers, buildings, and other urban or fortified targets. TOW's are best employed from upper stories or rooftops of buildings to obtain long range fields of fire. When deciding to dismount his TOW's, the commander must consider the advantages of long-range fires versus the disadvantage of the loss of mobility. In many cases, the best technique will be to keep the TOW's out of the city altogether, employing them on terrain on the outskirts. The minimum arming distances for TOW's/Dragons (65 meters) may restrict employment of these weapons. They cannot be used in a direct fire role against a target that is closer than 65 meters; for example, across a city street.

Another consideration for the employment of antitank weapons in an urban area is backblast. In urban combat the backblast area becomes more hazardous due to rubble and the channeling effect caused by narrow streets and alleys. The effects of backblast within buildings and structures will dictate where to locate firing positions. Proper ventilation must be present in order to fire a TOW weapon in an enclosed room.

Obstacles such as telephone wires and rubble must also be considered since they may restrict the flight of the wire guided missiles.

### **The Heavy Mortar Platoon**

The heavy mortar platoon is usually in general support. Forward observers move with the forward units to adjust fire on targets as requested by the supported troops. The greatest impact of the urban environment on indirect fires is overhead masking of targets. While all indirect fire weapons are subject to overhead masking, mortars are less affected than field artillery weapons because of the higher trajectory of the mortar round. Thus mortars provide the most responsive indirect fire to hit targets of opportunity at the close ranges typical of urban combat.

### **Ground Surveillance Radar**

The ground surveillance radar section can be positioned to monitor routes into and out of the built-up area. Inside the built-up area, radars are positioned to detect movement along streets, alleys, and other open areas, especially at night and during other periods of limited visibility.

## **Field Artillery**

Artillery is employed in its normal role of support to the maneuver units, using indirect and direct fire as feasible. Indirect artillery fire is planned to isolate objectives, prevent reinforcement and resupply, neutralize known and suspected command and observation posts, and suppress enemy defenders. Large-caliber artillery rounds, shot by direct fire, are good for destroying targets in buildings. If available, self-propelled 155mm and 8 inch howitzers can use direct fire to destroy or neutralize bunkers, heavy fortifications, or enemy positions in reinforced concrete buildings. Artillery guns must be secured by infantry in the same way as tanks.

## **Engineers**

Engineers may be attached to forward companies so that they can give them immediate support. Engineers prepare and use explosives to breach walls and obstacles, find and help to remove mines, and clear barricades and rubble to ease movement. Combat engineer vehicles can be used to destroy buildings, fire at enemy bunkers, crater roads, or clear rubble.

## **Air Defense Artillery**

Positioning of Chaparral and Vulcan weapons in urban terrain will often be limited to more open areas such as parks, fields, and rail yards due to masking. Towed Vulcan and Chaparral (separated from its prime mover) may be emplaced by helicopter on rooftops in dense urban areas to provide protection against air attacks from all directions. This should be accomplished only when justified by the expected length of occupation of the area and the enemy air threat.

MANPADS (Redeye/Stinger section) provide protection for battalions as in any other operation. When employed within the built-up area, rooftops normally offer the best firing position. Heavy machineguns emplaced on rooftops provide additional air defense.

## **Army Aviation**

When assault helicopters can be used in an attack, units can be inserted on rooftops and then clear down through buildings. Isolation units can be positioned quickly and, during the clearance phase, reinforcements can be rapidly shifted using cover of previously cleared buildings. Parking lots, playgrounds, and parks may also be used as landing zones.

## **Tactical Air Support**

Tactical air reconnaissance missions can provide detailed intelligence on enemy dispositions and capabilities. Air photos are very useful, especially if recent maps are not available. Close air support can provide the ground commander with selective and discriminating fire support. In addition to general purpose bombs, cluster bomb units, rockets, and guns, the Air Force has several guided bombs and missiles especially suited for engaging hard point targets. An airborne FAC will normally control strike aircraft. He has the advantage of being able to acquire targets more easily than could a ground FAC, ground commander, or artillery FO.

## **Communications**

The communication plan should provide for use of wire and radio down to platoon level. Installation of wire lines in sewer systems, subway tunnels, or within intact buildings, instead of along streets, helps to protect them from shellfire and tracked vehicles. Since radio communication may be greatly restricted by the surrounding buildings and wire lines may frequently be broken by falling buildings, shellfire, or other causes, units may have to resort to using foot messengers. Select messenger routes carefully to avoid pockets of enemy resistance and snipers. Since tank units depend heavily on radio communication, special measures are required to maintain communication within them and between separated elements of the combined arms formation. Radio communication can be enhanced by operating sets from the highest possible locations (rooftops or upper stories) and by the relaying of messages by other stations, including radio relay by Army aircraft. Rooftops and upper stories also provide opportunity for use of visual signals, pyrotechnics, smoke, and marking panels to indicate the need for fire, the shifting and lifting of fires, and/or to announce the seizure of a building or group of buildings. Armored personnel carriers may be used to provide mobile, protected communication centers as another measure to overcome the problems of communicating by FM line of sight radios in a built-up area. The prompt seizure of the city's telephone exchange with as little damage as possible cannot be overemphasized.

## **Combat Service Support**

As large expenditures of ammunition are common when attacking in an urban area, forward resupply points are set up to help retain momentum. Commanders should plan for early resupply of explosives, grenades, flame fuel, and small-arms and tank ammunition. Mobile distribution points may be set up down to company level. Armored personnel carriers and handcarrying parties may be used to resupply the forward units. Resupply by helicopters (prepackaged slingloads) may be feasible.

The battalion should arrange for special equipment, such as flamethrowers and toggle ropes with grappling hooks. Having such equipment on hand early will allow its use in rehearsals.

The evacuation of wounded from rooftops and upper stories of buildings may require additional litter bearers, or the use of special evacuation equipment. Rubble may keep ambulances out of some areas. Plans should provide for the marking of buildings which contain wounded troops. Where possible, provisions should be made to evacuate the wounded by helicopter from the tops of buildings.

Many of these considerations will be covered in unit SOP's.

An extract of [FM 90-10-1](#) contains a further discussion of combat support in offensive operations on urbanized terrain. Read these pages now before proceeding to [Practical Exercise 4](#).

## LESSON 2

### PRACTICAL EXERCISE 4

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. What are some of the missions of the scout platoon in an attack on an urban area?

2. Within the urban area, antitank weapons are primarily used to

3. Where are TOW's best employed on urban terrain?

4. List three considerations for the employment of antitank weapons in an urban area.

5. What is the greatest impact of the urban environment on indirect fires?

6. Which weapon system provides the most responsive indirect fire to hit close range targets on urban terrain?

7. In an urban area, where and when is ground surveillance radar positioned?

8. In an urban area, how can the 155mm SP HOW be used in a direct fire role?

9. How are combat engineer vehicles (CEV's) utilized on urban terrain?

10. Within the urban area, what is the best firing position for the MANPADS (Redeye/Stinger) weapon system?

11. Within a city, what areas can be used to land assault helicopters?

12. List three missions of TACAIR support during urban offensive operations.


13. How can radio communication be enhanced in an urban area?

14. When planning for fire support, what must the task force commander, in coordination with the FSO, consider?

# PRACTICAL EXERCISE 4

## ANSWER KEY AND FEEDBACK

---

1. What are some of the missions of the scout platoon in an attack on an urban area?

To screen an exposed flank or provide rear security; to help isolate a village or small town; be prepared to dismount and go into buildings either for reconnaissance or to set up observation posts.

2. Within the urban area, antitank weapons are primarily used to Defeat tanks.

3. Where are TOW's best employed on urban terrain?

From upper stories or rooftops of buildings.

4. List three considerations for the employment of antitank weapons in an urban area.

The minimum arming distance may restrict employment  
Backblast becomes more hazardous due to rubble and the channeling effect caused by narrow streets and alleys  
Obstacles, such as telephone wires may restrict the flight of the wire guided missiles.

5. What is the greatest impact of the urban environment on indirect fires?

Overhead masking.

6. Which weapon system provides the most responsive indirect fire to hit close range targets on urban terrain?

Mortars.

7. In an urban area, where and when is ground surveillance radar positioned?

Along streets, alleys, and open areas, especially at night and during other periods of limited visibility.

8. In an urban area, how can the 155mm SP HOW be used in a direct fire role?

To destroy or neutralize bunkers, heavy fortifications, or enemy positions in reinforced concrete buildings.

9. How are combat engineer vehicles (CEV's) utilized on urban terrain?

To destroy buildings; fire at enemy bunkers; crater roads; or clear rubble.

10. Within the urban area, what is the best firing position for the MANPADS (Redeye/Stinger) weapon system?

Rooftops of buildings.

11. Within a city, what areas can be used to land assault helicopters?

Rooftops, parking lots, playgrounds, and parks.

12. List three missions of TACAIR support during urban offensive operations.

Support the isolation of the city by interdicting entry and exit routes  
Support attacking units by reducing enemy strong points with precision guided munitions  
Conduct tactical air reconnaissance and provide detailed intelligence of enemy dispositions, equipment, and strengths.

13. How can radio communication be enhanced in an urban area?

By operating sets from the highest possible locations and by relaying of messages by other stations.

14. When planning for fire support, what must the task force commander, in coordination with the FSO, consider?

Target acquisition will be more difficult because of increased cover and concealment afforded by the terrain  
Indirect fires must be tightly controlled since urban fighting results in opposing forces fighting close-in  
The effects of munitions will be limited by buildings  
Fire restrictions may be imposed to protect civilians and critical installations  
Centralized control of field artillery at the DS battalion level enhances the capability to mass organic and reinforcing field artillery  
Restriction may be placed on artillery to reduce rubble.

## **EXERCISE 5: DETERMINING TACTICAL CONSIDERATIONS FOR AN ATTACK ON URBANIZED TERRAIN AT BATTALION TASK FORCE LEVEL AND COMPLETING PARAGRAPH 3 OF A BATTALION OPORD**

### **Introduction**

While a decision to attack a major urban area generally rests at a level higher than battalion, commanders at all levels must be prepared to fight in such areas. A commander may attack an urban area:

- To secure and control critical features (bridges, road nets, etc.)
- To return the area to friendly control for political reasons
- To contain an enemy force
- Because it cannot be bypassed.

Urban attacks are avoided when:

- Seizure of the area is not required to support future operations and bypassing is tactically feasible
- Sufficient force is not available to seize and clear the area
- The area has been declared an "open city" to prevent civilian casualties or preserve cultural or historical sites.

### **Differences Between Urban and Open Terrain**

**Key Terrain.** Key terrain is an area whose seizure or control affords a marked advantage to the occupying or controlling force. The major difference between urban key terrain and open key terrain is the number of features to be examined and considered. A built-up area can be said to be a compressed battlefield. On open terrain, there are relatively few terrain features to consider. In a built-up area, there are many that are not present on open terrain; for example, underground systems, communication systems, transportation networks, etc. A possible list of differences includes:

- The number of features to consider
- A preponderance of man-made features such as multi-storied buildings
- Man-made key features are vulnerable to total destruction
- Underground systems may be present and may be considered key terrain
- Wide streets may be considered key terrain if there is a general lack of avenues of approach that allow for massing of combat power.

**Observation and Fields of Fire.** Observation is the ability of a force to exercise surveillance over a given area. The term "fire" encompasses the influence of the terrain on both direct and indirect fire weapons. A possible list of differences includes:

- Generally, observation will be more restricted than on open terrain
- Only a few points in a built-up area will allow observation over a wide area
- Man-made observation points are highly vulnerable to total destruction
- Generally, fires will be limited in range by structures

- Indirect fires are influenced by high buildings that create a demand for high-angle fires, thus reducing effective ranges
- Obscuration is a greater problem than on open terrain due to structures increasing the effectiveness of smoke (preventing spread).

**Cover and Concealment.** Cover is protection from the effects of fires; concealment is protection from observation. Possible differences between cover and concealment in open and urban terrain are:

- Both cover and concealment are more readily available in urban terrain
- Built-up areas offer "instant cover," whereas open terrain requires more searching and, in most cases, digging
- Concealment is more likely to defeat enemy detection devices such as infrared sensors and radar

**Obstacles.** An obstacle is any natural or artificial terrain feature that stops, impedes, or diverts military movement. A few possible obstacle differences in open and urban terrain are:

- A built-up area is itself an obstacle that impedes military movement
- Streets and alleys force the attacker to canalize while preventing him from bringing maximum combat power to bear
- Obstacles within a built-up area, such as drainage ditches, are less likely to be identified in the analysis of the area of operations than obstacles on open terrain that are more likely to be apparent from a map reconnaissance.

**Avenues of Approach.** An avenue of approach is a route for a force of a particular size to reach an objective. To be considered an avenue of approach, a route must provide enough width for the deployment of the force for which it is being considered. Possible differences in open and urban terrain include:

- Streets, street patterns, structures, and underground systems determine avenues of approach in urban areas, whereas natural terrain determines avenues on open terrain
- Avenues in urban areas are more likely to change radically in direction than on open terrain
- Avenues in urban areas are difficult to define for large units since they would require numerous streets in order to fully deploy
- It is difficult to find a single avenue of approach in urban areas for a unit larger than a company.

### **Advantages to the Attacker**

While advancing upon the urban area, the attacker has the advantage of maneuver. After isolating the urban area the attacker can then decide whether to continue the attack or contain the defender and force him to capitulate.

The attacker may select the point of entry into the urban area. The attack may be conducted from any direction, and at the time of the attacker's choosing.

Examples of common offensive operations in urban areas at battalion task force level have been extracted from [FM 90-10-1](#). Read these pages now before proceeding to [Practical Exercise 5](#).

## LESSON 2

### PRACTICE EXERCISE 5

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. Discuss the types of obstacles found in an urban area

2. What are the differences between cover and concealment in open and urban terrain?

3. What features determine avenues of approach in urban areas?

4. When trying to seize a key feature such as a bridge in an urban area, which type of operation would best achieve success?

- A. Deliberate attack.
- B. Hasty attack.
- C. Movement to contact.
- D. Pursuit.

5. In this practical exercise, you are the S3 of TF 2-77 developing your plan of attack to seize OBJ ALPHA. Use the following [Simulated Tactical Situation](#), [Brigade OPORD](#), the [Columbus-Phenix City Map](#) and [Special Map 1](#) to complete the [Battalion OPORD worksheet](#).

# SIMULATED TACTICAL SITUATION

## 1. General Situation (See Fort Benning Reservation Map.)

- a. I Corps (U.S.) has been attacking west to seize objectives in the vicinity of BIRMINGHAM, ALABAMA. The corps commander has determined that the cities of PHENIX CITY, ALABAMA and COLUMBUS, GEORGIA, must be cleared. He has ordered the 54th Inf Div (Mech) and the 25th Armored Division to attack to seize objectives that isolate the cities. The 52d Inf Div (Mech), currently in Corps Reserve, has been ordered to seize the business districts of the cities, on order.
- b. Elements of the 25th Motorized Rifle Division have been preparing strong defenses in PHENIX CITY-COLUMBUS. The unit's morale is considered excellent. His strength is estimated at 90 percent. Supplies have been stockpiled within the cities and no known deficiencies exist.

## 2. Special Situation:

- a. By 060800 the 54th Inf Div (Mech) and the 25th Armored Division had succeeded in isolating all avenues of approach into PHENIX CITY-COLUMBUS except Route 103 (RIVER Road) to the north. The 52d Inf Div (Mech) continued the attack west through the outskirts of COLUMBUS with 1st Bde on the left (south) and 2d Bde on the right (north). Movement was hampered by light and scattered enemy resistance and by widespread burning of the residential areas.
- b. The CG, 54th Mech Inf Div, ordered the 1st Bde to consolidate positions along BUENA VISTA Road where increased enemy resistance had been encountered by lead elements.
- c. 1st Bde, 52d Inf Div (Mech) continued the attack at 081200 Jun \_\_\_\_\_, in accordance with 1st Bde OPORD 5. By 092000 Jun \_\_\_\_\_, 1st Bde reached PL HOLLAND where TF 2-4 passed through TF 2-77 to continue the attack while TF 2-77 became 1st Bde reserve. TF 2-77 is currently resting and reorganizing vic GL899935. the intersection of 10th Street and 8th Avenue.
- d. At 110700 Jun \_\_\_\_\_, 1st Bde Cdr issued TF 2-77 the following FRAGO:
  - (1) Task Organization: No change from 1st Bde OPORD 5.
  - (2) Situation: OPFOR resistance remains heavy opposite 2-79 Mech and TF 2-78. TF 2-4 has cleared its zone to 4th Avenue but has taken serious losses. OPFOR continues to use 9th Street and DILLINGHAM Street bridges to bring supplies and reinforcements to east side of river. TF 2-4 will complete clearing of OPFOR from bypassed buildings east of 4th Avenue NLT 111800 Jun \_\_\_\_\_.
  - (3) Mission: TF 2-77 atks at 120600 Jun \_\_\_\_\_ conducting a rapid advance seize of east bank of CHATTAHOOCHEE River vic 9th Street and DILLINGHAM Street. Halt OPFOR movement across bridges. Secure west side of bridges if possible.

(4) Fire Support: H and I fire (155mm, VT) in progress on bridges now will continue, lifted on order of TF 2-77. Priority of fires to TF 2-77 eff 120600 Jun \_\_\_\_\_. Four F4 sorties available.

(5) Coordinating Instructions: TF 2-4 will follow and support TF 2-77. 2-79 Mech and TF 2-78 attack to clear respective zone 120600 Jun \_\_\_\_\_. Line of departure is 4th Avenue. TF 2-77 north boundary is 10th Street, north of 10th Street reverts to 2d Bde control, TF 2-77 controls 10th Street. Corps Cdr retains authority to destroy bridges across CHATTAHOOCHEE River.

(6) Terrain Analysis:

- (a) Residential area in Block UU is a smoldering ruin except for Bldg UU1. Bldg UU1 - Roof caved in by enemy for standoff; otherwise intact.
- (b) Bldg S1 - Roof collapsed, most of walls still standing; rubble around walls and interior of building.
- (c) Bldg II - Rubbled.
- (d) Bldg JJ4 through JJ9 - Smoldering ruins.
- (e) Bldg SS2 - Most of the windows have been blown out of the top four stories.

(7) Current INTSUM:

- (a) Three Motorized Rifle Platoons vicinity Blocks RR, TT and ZZ.
- (b) Suspected OP vic Bldg SS2
- (c) One T-62 tank located vicinity Block RR and two T-62 tanks located in block UU.

## BRIGADE OPORD

**Copy No. 5 OF 50 Copies  
1ST BDE,52D INF DIV  
(MECH)  
COLUMBUS,GEORGIA  
080700A\_\_\_\_19\_\_\_\_**

### OPORD 5

#### Reference:

Time Zone Used Throughout the Order: ALFA

#### Task Organization:

2-79 Mech(-)  
2/A/52 Engr (DS)  
1 CEV

TF 2-77

2-77 Mech

TF 2-78

2-78 Mech (-)

<b>2/A/2-44ADA (V)</b>	<b>A/2-4 Armor</b>	<b>B/2-4</b>
	<b>1/A/52Engr (DS)</b>	<b>3/A/52Engr (DS)</b>
	<b>1 CEV</b>	<b>1/A/2-44ADA (V)(DS)</b>
	<b>3/A/2-44ADA (V)(DS)</b>	
	<b><u>TF 2-4 Armor</u></b>	<b><u>Bde Con</u></b>
	<b>2-4 Armor (-)</b>	<b>C/2-33 CAV</b>
	<b>B/2-79 Mech</b>	<b>7-50 Arty (DS)</b>
	<b>C/2-78 Mech</b>	<b>A/2-44 (V) (DS)</b>
		<b>1/C/2-44 ADA (C)</b>
		<b>A/52 Engr (DS)</b>

## 1. Situation

### a. Enemy Forces:

- (1) Annex A - Intel Overlay (TBP).
- (2) Current INTSUM.
- (3) Units in zone est 90 percent strength.
- (4) Indications are that the OPFOR will defend present positions.

### b. Friendly Forces:

- (1) 52d Inf Div (Mech) atks 081200 Jun 19 \_\_\_, to clear zone; secure bridges across the CHATTAHOOCHEE RIVER; cont atk to west on order.
- (2) 54th Inf Div (Mech) atks 081200 Jun 19 \_\_\_, to clear zone.
- (3) 2d Bde atks 081200 Jun 19 \_\_\_, to clear zone; secure bridge across CHATTAHOOCHEE River.
- (4) 7-51 FA reinforce 7-50 FA.
- (5) Elm 9th AF spts atk.

### c. Attachments and Detachments: Task Organization.

## 2. Mission

1st Bde atks 081200 Jun \_\_\_, to clear zone; secure bridges across CHATTAHOOCHEE River; cont atk west on order.

## 3. Execution

### a. Concept of Operation:

- (1) Maneuver. Brigade atks with TF 2-77 to seize OBJ A (GL883933), 2-79 Mech to seize OBJ B (GL884928), and TF 2-78 to seize OBJ's C (GL885922) and D (GL8991).
- (2) Fires. Annex C (Tgt Overlay). Priority of fires to TF 2-78, 5 CAS sorties approved to be on-call 1200 to 1400 hrs 8 Jun 19 \_\_\_\_.

b. TF 2-77: Be prepared to seize OBJ B on order. Clear city government bldg with minimum damage.

c. TF 2-78: Be prepared to assist in seizure of OBJ B.

- d. 2-79 Mech: Be prepared to seize OBJ C.
- e. TF 2-4: Maintain close contact with TF 2-77.
- f. C/2-33 CAV: Screen brigade left flank from rear TF 2-78 to LD/LC.
- g. Coordinating Instructions:
  - (1) A/2-44 ADS (V) (-): DA, priority of protection to TF 2-78, TF 2-77, 2-79 Mech, and TF 2-4 in that order.
  - (2) A/52 Engr (-): DS, priority of work TF 2-77, TF 2-78, and 2-79 Mech.
  - (3) Psychological appeals will be issued by Bde following arrival at PL HOLLAND.
  - (4) TF 2-77 affects coordination with 2-79 Mech for passage of lines prior to 081000 Jun 19 \_\_\_\_.
  - (5) TF 2-77 affects coordination with 2-79 Mech for passage of lines prior to 081000 Jun 19 \_\_\_\_.
  - (6) Bde has control and responsibility of roads on both left and right boundaries.

#### **4. Service Support**

- a. General: Combat service support operations will be conducted by elements 52d Div DISCOM at the location of the Bde trains vic GOODBLOOD Rge (0493)
- b. Materiel and Services:
  - (1) Force Activity Designator is 1.
  - (2) Supply. The following indicated classes of supply are provided by appropriate DISCOM elements in Bde trains area:
    - (a) CL III: Forward Support Section has 1 day supply mogas and diesel fuel on hand.
    - (b) CL V:
      - 1. DAO Located GL100858.
      - 2. ASR.

Weapon	Rds/Wpn/Day	Rds/Bn/Day
TOW	60	540
81 Mortar HE	8	144
155 HOW HE	60	1080

- c. Water point located 095918:
  - (1) Services:
    - (a) Laundry and bath located vic of water point.
    - (b) Graves registration collection point will be located vic of DISCOM and company in Bde trains area.
  - (2) Maintenance: Priority of maintenance support TF 2-78
- d. Medical Evacuation: Hospitalization: Aeromedical evac from Bn aid stations used to the maximum for high priority casualties.
- e. Personnel: Guards delivering PW's to PW collection point GL045931 remain under control of PM until released.

## **5. Command and Signal**

### **a. Signal:**

- (1) CEOI Index 1-6 in effect.
- (2) Wire communications will be maintained with Bde CP once PL HOLLAND is crossed.

### **b. Command:**

- (1) Cmd Gp fol TF 1-78 init.
- (2) CP remains in present loc (GL987934) initially, displace to FL915936 on order.

Acknowledge

SUSMUNDO

COL

FIGURE 2-3. COLUMBUS-PHENIX CITY MAP

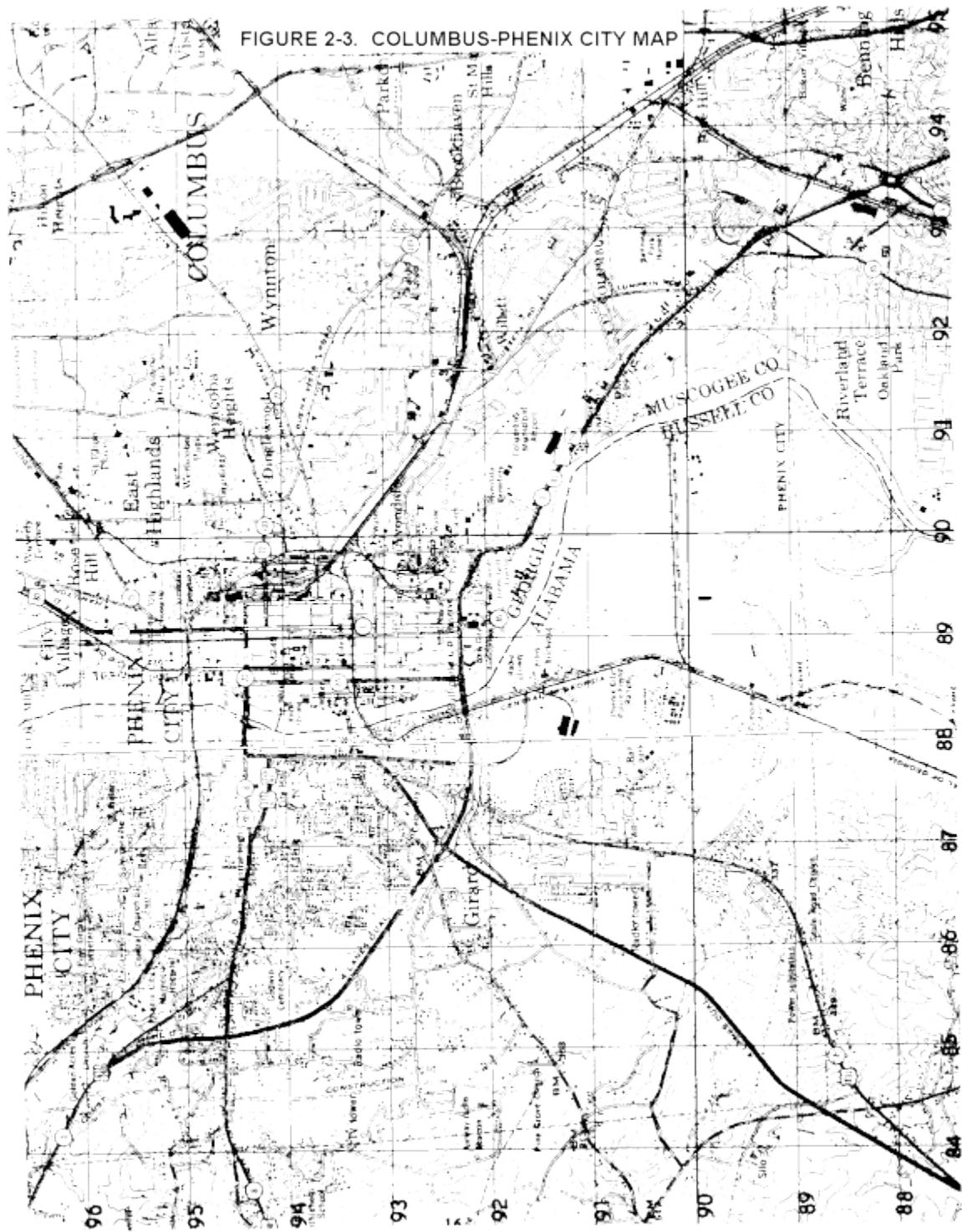
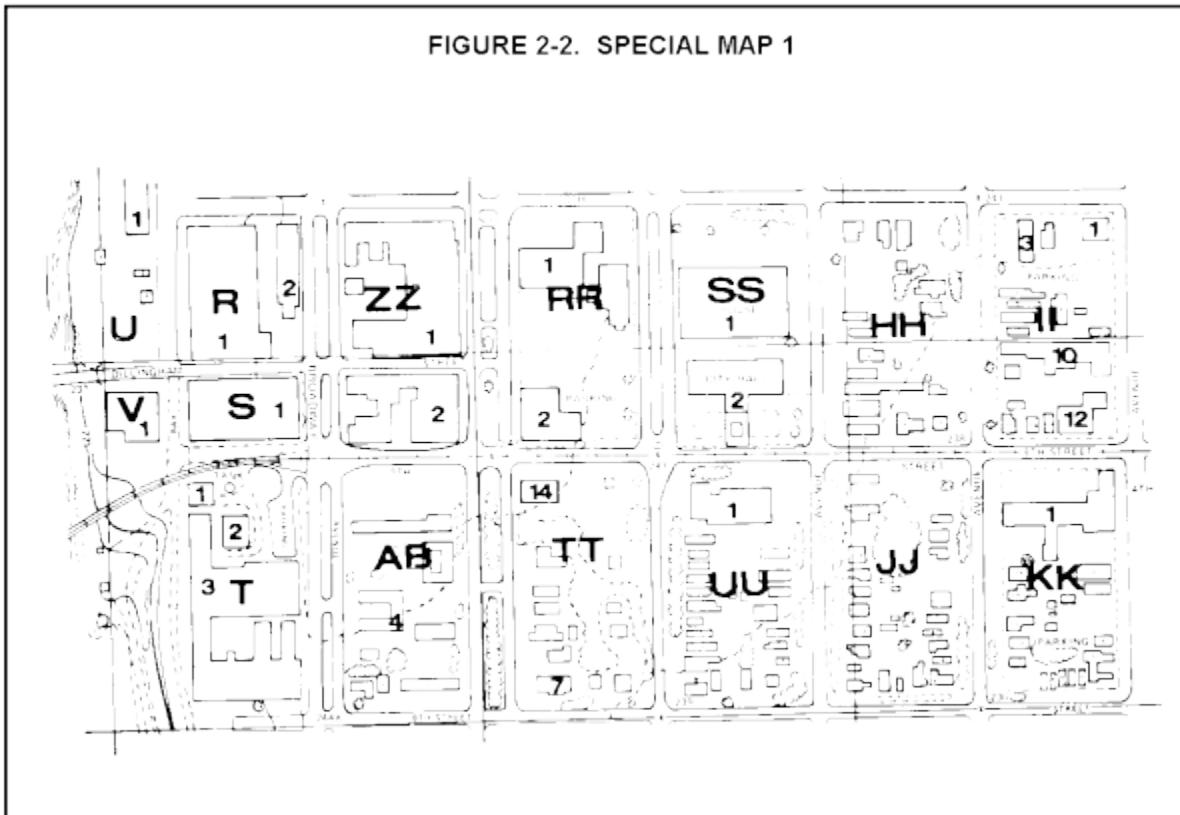


FIGURE 2-2. SPECIAL MAP 1



# WORKSHEET FOR BATTALION OPORD

## Task Organization: TF 2-77

<u>Tm A</u>	<u>Co B</u>	<u>Tm C</u>	<u>Tm TANK</u>
A/2-77 Mech (-)	B/2-77 (Mech (-)	C/2-77 Mech	A/2-4 Armor (-)
1/A/2-4 Armor		2/A/2-4 Armor	1/B/2-77 Mech
1 CEV (DS)		1/1/A/52 Engr (DS)	1/A/2-77 Mech
TF CON			
AT Plt			
Sct Plt			
Hv Mort Sec			
Redeye Sec			
1/A/52 Engr (-) (DS)			
3/A/2-44 ADA (V)(DS)			

### 1. Situation (See General Situation)

### 2. Mission

TF 2-77 atks 120600 Jun to seize east bank of CHATTAHOOCHEE River vic 9th and DILLINGHAM Streets; halt OPFOR mvmnt across bridges and secure west side of bridges if possible.

### 3. Execution

#### a. *Concept of Operation:*

(1) *Maneuver.* \_\_\_\_\_

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(2) *Fires.* \_\_\_\_\_  
\_\_\_\_\_

b. *Tm A:* \_\_\_\_\_  
\_\_\_\_\_

c. *Co B:* \_\_\_\_\_  
\_\_\_\_\_

d. *Tm C:* \_\_\_\_\_  
\_\_\_\_\_

e. *Tm TANK:* \_\_\_\_\_  
\_\_\_\_\_

f. *Sct Plt:* \_\_\_\_\_  
\_\_\_\_\_

g. *Antitank Plt:* \_\_\_\_\_  
\_\_\_\_\_

h. *Hv Mort Plt:* \_\_\_\_\_  
\_\_\_\_\_

i. *Redeye Sec:* \_\_\_\_\_  
\_\_\_\_\_

j. *Coordinating Instructions:* \_\_\_\_\_  
\_\_\_\_\_

# PRACTICE EXERCISE 5

## ANSWER KEY AND FEEDBACK

---

1. Discuss the types of obstacles found in an urban area

An Urban area is itself an obstacle; streets and alleys force the attacker to canalize while inhibiting combat power, obstacles such as drainage are less likely to be identified from a map reconnaissance.

2. What are the differences between cover and concealment in open and urban terrain?

Both cover and concealment are more readily available in urban terrain; built-up areas offer "instant cover"; concealment on urban terrain is more likely to defeat enemy detection devices.

3. What features determine avenues of approach in urban areas?

Streets, street patterns, structures, and underground systems.

4. When trying to seize a key feature such as a bridge in an urban area, which type of operation would best achieve success?

- A. Deliberate attack.
- B. Hasty attack.
- C. Movement to contact.
- D. Pursuit.

5. In this practical exercise, you are the S3 of TF 2-77 developing your plan of attack to seize OBJ ALPHA. Use the following Simulated Tactical Situation, Brigade OPORD, the Columbus-Phenix City Map and Special Map 1 to complete the Battalion OPORD worksheet.

Two solutions are presented for the Battalion OPORD worksheet, one for a rapid advance, and one for a systematic clearance. These solutions are the only ways to execute the mission of TF2-77.

As the S3, you should plan an attack that offers the greatest probability of success. Use these solutions as an aid and compare your completed worksheet with the solutions presented here to see how close you are and why.

# Rapid Advance

## 3. Execution

### a. *Concept of Operation:*

- (1) Maneuver. TF atks with Tm A initially securing Bldg SS2; TF (-) crosses LD on order with Tm C making a rapid advance along AXIS GREEN to secure Bldg T3; and continues the atk with Tm TANK on the left, Co B in the center and Tm A on the right to clear zone to the CHATTAHOOCHEE River.
- (2) Fires. A ten-minute prep planned on Bldg SS2 to be fired on order. Priority of fires initially to Tm A, on order to Tm C.

### b. *Tm A:*

- (1) Submit plan for seizure of Bldg SS2 NLT 120300 Jun for approval.
- (2) Support rapid advance of Tm C from Bldg SS2.
- (3) Clear Bldgs in Blocks RR, ZZ1, R and U on order.
- (4) Be prep to assist Co B in passing thru your elements and in seizure of west end of bridges.

### c. *Co B:*

- (1) Follow Tm A to BROADWAY Street then clear Bldgs ZZ2, S1, and V1.
- (2) Be prep to cont atk to secure west end of bridges.

### d. *Tm C:*

- (1) Move as rapidly as possible to seize DILLINGHAM Bridge.
- (2) Be prep to secure west end of bridges.
- (3) Be prep to seize railroad bridge if DILLINGHAM is blown.

### e. *Tm TANK:*

- (1) Spt Tm C init vic LD.
- (2) Clear all blocks in Zone.
- (3) Be prep to spt Tm C's seizure of west end of bridges.

### f. *Sec Plt:*

- (1) Coordinate with TF 2-4 Armor for passage of lines.
- (2) Inspect entrances/exits of manholes to underground sewer system on our zone.
- (3) Be prep to provide rear security from BROADWAY Street to LD.

### g. *AT Plt:* GS; init loc vic tall bldgs on 10th Ave; displace to Bldgs R1 and T3 on order.

### h. *Hv Mort Plt:* GS; vic MARSHALL School; displace fwd on order.

### i. *Redeye Sec:* GS; priority to CP, Cbt Tns, Tm A, and Tm C.

### j. *Coordinating Instructions:*

- (1) TF controls 8th and 10th Streets.
- (2) Tm A has control of 9th Street.
- (3) Report crossing all streets and/or phaselanes.
- (4) Mark all cleared bldgs with a Red X with spray paint.
- (5) SP 120530; order of march is Tm A, Cmd Grp, Tm C, Tm Tank, and Co B.
- (6) MOPP Status I.
- (7) Wpns Tight.

- (8) 3/A/2-44 ADA(V): GS; prov suppressive fire to spot Tm A.
- (9) 1/A/52 Engr (-): GS; assist in TF fwd mobility.



# Systematic Clearance

## 3. Execution

### a. *Concept of Operation:*

- (1) Maneuver. TF atks with Tm A initially securing Bldgs 1110 and 1112; on order TF (-) crosses the LD with Tm C attacking on the left to clear zone and secure Bldgs UU1 and T3, Tm A on the right clears zone and secure Bldgs SS2 and R1; Tm B and Tm TANK, reserves, follow Tm A and Tm C respectively.
- (2) Fires. 155m prep on Bldgs SS2, UU1, T3, R1, and S1 to be fired on order; smoke and WP planned on Bldg SS2. Priority of fires to Tm A initially.

### b. *Tm A:*

- (1) Be prep to seize or assist in seizure of Bldgs UU1, S1, and V1.
- (2) Spt T C mvmnt into Block KK by fire from Bldg II12.
- (3) Clear Bldg SS2 with minimal damage.
- (4) Be prep to spt continuation of atk of Co B from vic Bldg SS2.
- (5) On order secure west wide of bridges.

### c. *Tm C:*

- (1) Spt Tm A seizure of TF foothold from vic bldg on 4th Ave.
- (2) Be prep to spt seizure of west side of bridges by fire from Block T.
- (3) Assist engineers in checking railroad bridge for explosives.

### d. *Sct Plt:*

- (1) Make coordination with TF 2-4 Armor for passage of lines.
- (2) Inspect entrances/exits of manholes to underground sewer system in our zone.
- (3) Be prep to screen TF right flank from rear of Tm A to LD.

### e. *Alt Plt:* GS; init loc vic tall bldgs on 10th; displace to Bldgs R1 and T3 on order.

### f. *Hv Mort Plt:* GS; init vic Marshall Junior High School; displaces fwd on order

### g. *Redeye Sec:* GS, priority to CP, Cbt Tns, Tm A, and Tm C.

### h. *Reserves:*

- (1) Co B.
  - (a) Be prep to spt atk of Tm A during seizure of foothold.
  - (b) Be prep to pass thru Tm A vic Broadway and seize Bldgs R1 and S1.
  - (c) Cont atk to secure west and of bridges on order.
  - (d) Be prep to assist in seizure and clearance of Bldg SS2.
- (2) Tm TANK.
  - (a) Be prep to assume msm to Tm C.
  - (b) On order assist Sct Plt in clearing underground psg in zone.
  - (c) Maintain contact with Tm C and occupy most recently cleared blocks.

### i. *Coordinating Instructions:*

- (1) TF controls 8th and 10th Streets.
- (2) Tm A has control of 9th Street.
- (3) Report crossing all streets and/or phaselines.

- (4) MOPP Status is I.
- (5) Wpns Tight.

## URBANIZATION

Urbanization is a complex, multifaceted process influenced by many factors including a nation's cultural development, its economic resources, and its industrial capacity. Although its form varies from region to region, urbanization is characterized by a general pattern of changes in land usage and the spread of manmade features across natural terrain.

Tactical terrain analysis has traditionally considered some elements of the urban environment such as the allocation of land to agriculture or forestry and the distribution of railway or road networks. However, the focus has been on natural terrain elements. In Europe and other urbanized areas of the world, increased awareness of the effects of manmade features on the overall tactical scheme is necessary. How urban terrain elements impact on operations is an important consideration in determining our tactical options.

For the small-unit tactical commander, the physical layout of a buildup area and structural characteristics of its buildings are critical planning considerations. Appendix A provides a detailed discussion of these factors and the combat characteristics of various types of built-up areas for offensive and defensive operations. For commanders at battalion level and above, the size of a built-up area, the support network of lines of communication, and the urban pattern formed by a complex of built-up areas assume added importance.

## BUILT-UP AREAS

The following discussion uses the central European setting to describe these aspects of urbanization. With minor modifications, it is applicable to other urban areas throughout the world.

A built-up area is a concentration of structures, facilities, and population which form the economic and cultural focus for the surrounding area. There are four categories:

### **Large Cities** *(Population Greater than 100,000.)*

Most typical of the urbanization process is the increasing number of large and still-growing large cities. In Europe, other than the Union of Soviet Socialist Republics (USSR), there are approximately 375 cities with populations in excess of 100,000. The Federal Republic of Germany (FRG) has 49 cities with populations exceeding 100,000 and 4 cities of over 1 million. Large cities frequently form the core of a larger, densely populated urban complex consisting of the city, its suburban areas, and small towns. Such complexes have the appearance of a single, large, and continuous city containing millions of people and occupying vast areas of land. The illustration on the following page depicts major complexes that exist in FRG. The Rhine-Ruhr complex stretches west to Aachen and south to Bonn and

contains over 12.5 million people concentrated in 13,000 square kilometers. The Rhine-Main complex includes Frankfurt, Darmstadt, Mainz, Mannheim, and Karlsruhe; it contains over 5 million people in 7,000 square kilometers. To the southeast, greater Stuttgart (2 million people in 3,000 square kilometers) will soon merge with Rhine-Main. These urban centers encompass 10 percent of FRGs total land area and approximately one-half of its total population.

**Towns and Small Cities**  
**(3,000-- 100,000.)**

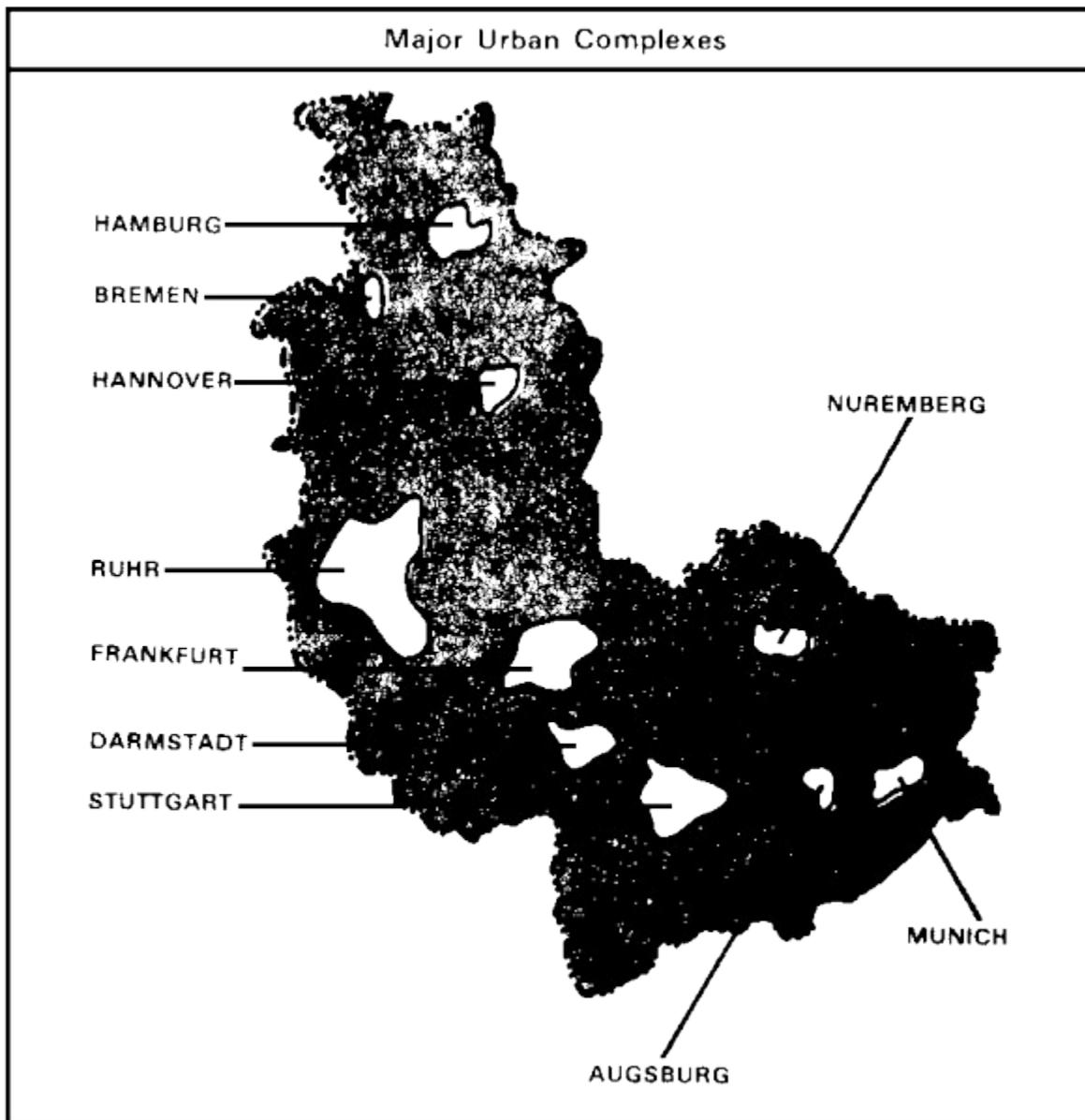
Within the FRG there are approximately 235 small cities/towns with populations from 3,000-100,000. In many cases these areas are located along major lines of communications and situated in river valleys. Similar to larger cities, these areas are continuing to expand and will eventually form new conurbations or merge with existing ones.

**Villages. (Less than 3,000.)**

In the FRG there are approximately 21,000 built-up areas with populations of less than 3,000. In most cases these villages are agriculturally oriented and are usually distributed among the more open cultivated areas of Germany. In the average brigade sector in the FRG there are 25 of these villages. The average distance between them is only 3.5 kilometers.

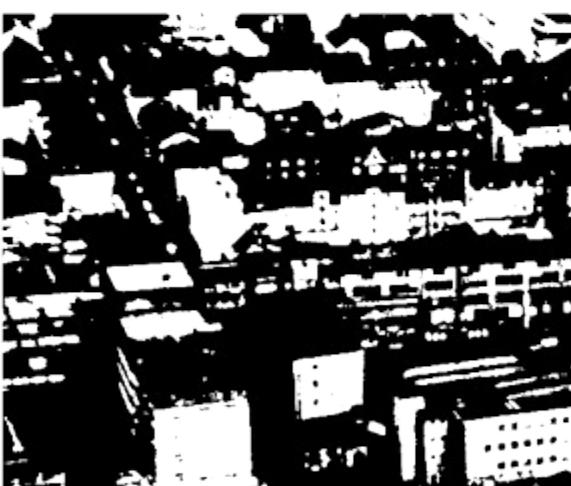
**Strip Areas**

These built-up areas generally form connecting links between villages and towns. They are also found along lines of communications leading to larger complexes. Although the size and population of strip areas vary, they normally assume a long thin linear pattern.



## BUILDING AND STREET PATTERNS

The physical layout of built-up areas is of tactical significance. Five basic building and street patterns which impact on fire support and maneuver schemes recur throughout western Europe. Appendix A provides a detailed analysis of the tactical implications of each pattern. For ease of reference, they have been identified by form and assigned a letter designation. The following table briefly summarizes the general characteristics of each pattern.

TYPE	GENERAL CHARACTERISTICS
<b>A Dense, Random Construction</b> 	Typical old inner city construction with narrow winding streets radiating in an irregular manner from a central area. Found within cities, towns, and villages. Buildings are located close together and frequently along the edge of roadways.
<b>B Closed-orderly Block</b> 	Common to central areas of towns and cities. Wider streets forming generally rectangular patterns with buildings frequently forming a continuous front along a block. Inner block courtyards are common.

Normally contiguous to Type B areas. Consists of rowhouses or single dwellings with yards, gardens, trees, and fences. Street pattern is normally rectangular or curving.

C Dispersed Residential Area



Typical of modern construction in larger towns or cities. Consists of multistoried apartments, separated large open areas, and one-story buildings. Wide streets are laid out in rectangular patterns.

D High-rise Area



Older complexes may be found within Type A and B areas. New construction normally consists of low, flat-roofed factory and warehouse buildings. Generally located on or along the major rail and highway routes of the urban complex.

E Industrial/Transportation



## CHARACTERISTICS OF URBAN OFFENSIVE OPERATIONS

Offensive operations in urban areas are based on offensive doctrine, modified to fit the peculiarities of the area. At battalion level, the offense will take the form of either a **hasty** or a **deliberate** attack.

A **Hasty Attack** is conducted when retaining momentum is crucial. Hasty attacks are feasible when the enemy has not fortified his positions, permitting the attacking force to overwhelm the defense without protracted combat.

A **Deliberate Attack** is conducted when avoiding risks is crucial. Deliberate attacks are required when enemy positions are well prepared, when the urban area is large or severely congested, or when surprise has been lost. The attack is characterized by thorough reconnaissance, planning, and coordination.

### THE HASTY ATTACK

Three tasks are common to a hasty attack. **They are:**

- Find a weak point or gap in enemy defenses.
- Fix forward enemy elements.
- Quickly move through or around the weak point or gap.

Those tasks cannot always be executed in the same order. Commanders must exploit opportunities as they appear. For example, leading units of a battalion may be engaged with forward enemy elements when it becomes apparent that a weak point exists in the defensive position. In another case, a reconnaissance force may discover a gap and then be ordered to seize the terrain controlling the gap to prevent enemy reinforcement. In any case, speed is essential. If momentum is lost, the hasty attack will fail.

Because an urban area is itself an obstacle, a hasty attack in such an area is conducted somewhat differently than in open terrain. Incomplete intelligence and the concealment available in an urban area may require the maneuver unit to move through, rather than around, the friendly unit fixing the enemy in place. Control and coordination become most important to reduce congestion at the edge of the urban area.

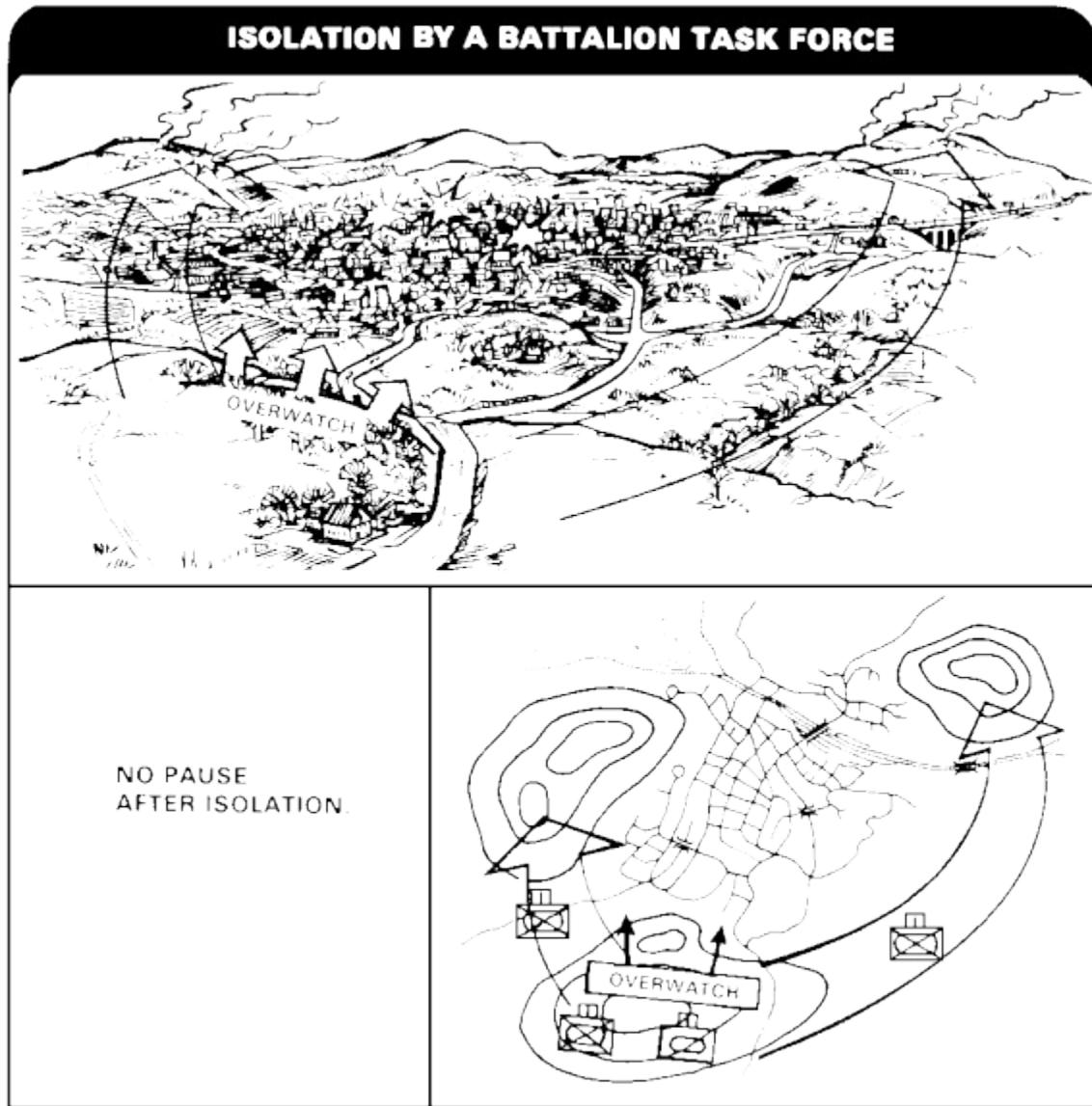
Follow-up "on order" missions or fragmentary orders may be given to a force making a hasty attack so it can react to a contingency once its objective is secured.

### THE DELIBERATE ATTACK

There are normally three steps in the deliberate attack of an urban area. They are:

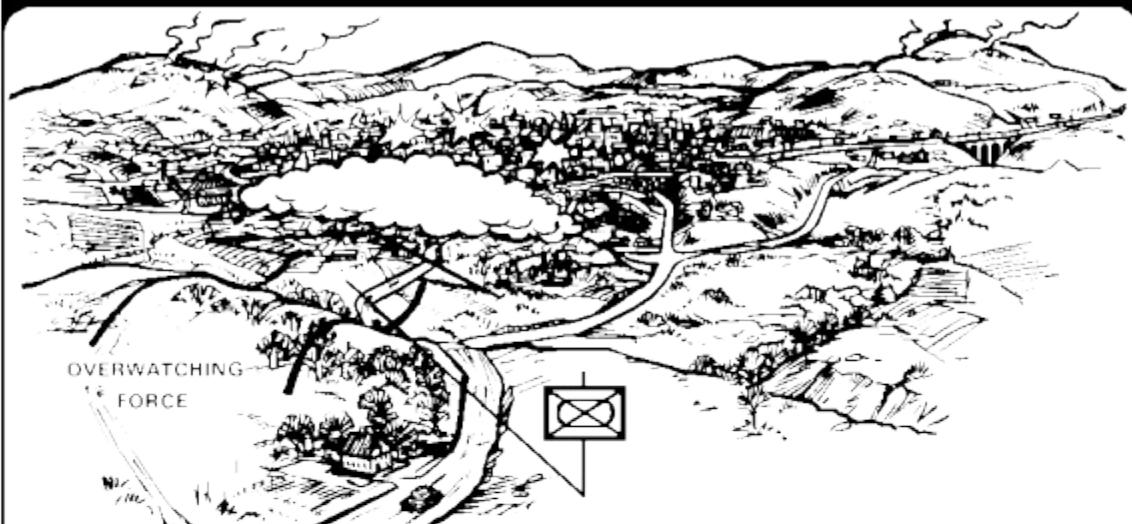
- Isolate the area (objective).
- Secure a foothold.
- Clear the area.

**Isolating** the area involves seizing terrain that dominates the area so that the enemy cannot supply or reinforce its defenders. This step may be taken at the same time as the foothold and clearance steps. After isolating the area, there should be no pause before the following steps.



**Securing a Foothold** involves seizing an intermediate objective that provides cover from enemy fire and a place for attacking troops to enter the urban area. A foothold is normally one to two city blocks and is an intermediate objective of a company. As the company attacks to secure the foothold, it should be supported by suppressive fire and smoke.

## BATTALION Foothold



SUPPORT WITH  
SUPPRESSIVE FIRE  
AND SMOKE.

The attacking commander considers the factors of mission, enemy, terrain and weather, and troops and time available (METT) in determining to what extent the built-up area must be cleared. The commander may decide to clear only those parts necessary for the success of his mission if:

- **An objective must be seized quickly.**
- **Enemy resistance is light or fragmented.**
- **The buildings in the area are of light construction with large open areas between them. In that case, he would clear only those buildings along the approach to his objective, or only those buildings necessary for security.**

## CLEARING BUILDINGS ALONG THE ROUTE OF AN ATTACK



On the other hand, a unit may have a mission to systematically clear an area of all enemy, or it may assume that mission in the face of strong, organized resistance or in areas having strong buildings close together. In that case, one or two companies may attack on a narrow front against the enemy's weakest sector. Those companies move slowly through the area, clearing systematically from room to room and building to building. The other company supports the clearing units and is prepared to assume their mission.

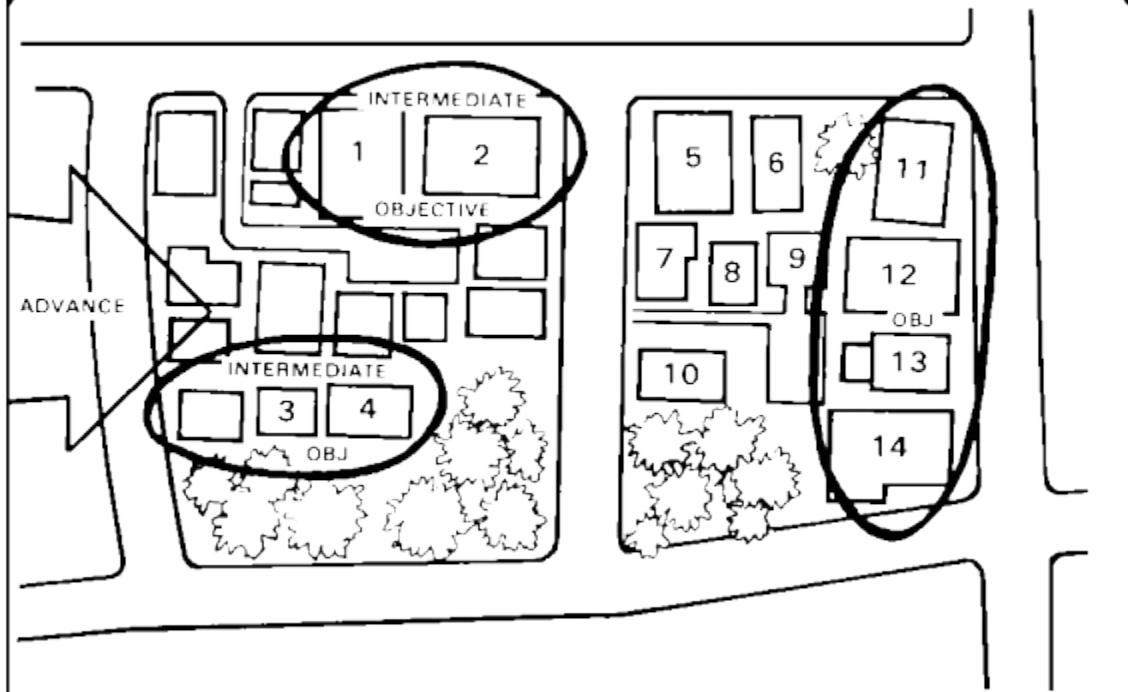
## SYSTEMATIC CLEARANCE WITHIN ASSIGNED SECTORS



## OBJECTIVES

When attacking to seize a foothold, the battalion normally assigns a forward company the first block of buildings as its first objective. When an objective extends to a street, only the near side of the street is included. The companies' final objectives may be buildings at the far edge of the urban area or key terrain on the far side. Key buildings or groups of buildings also may be assigned as intermediate objectives. Buildings along the route of attack should be identified by numbers to simplify assigning objectives and reporting.

## CONTROL MEASURES AND EXAMPLE OF NUMBERING SYSTEM



When the unit is involved in clearing operations bypassing of buildings increases the risk of attack from the rear or flank. Thus, the clearing unit must enter, search, and clear each building. A single building may be an objective for a rifle squad or, if the building is large, for a rifle platoon or even a company.

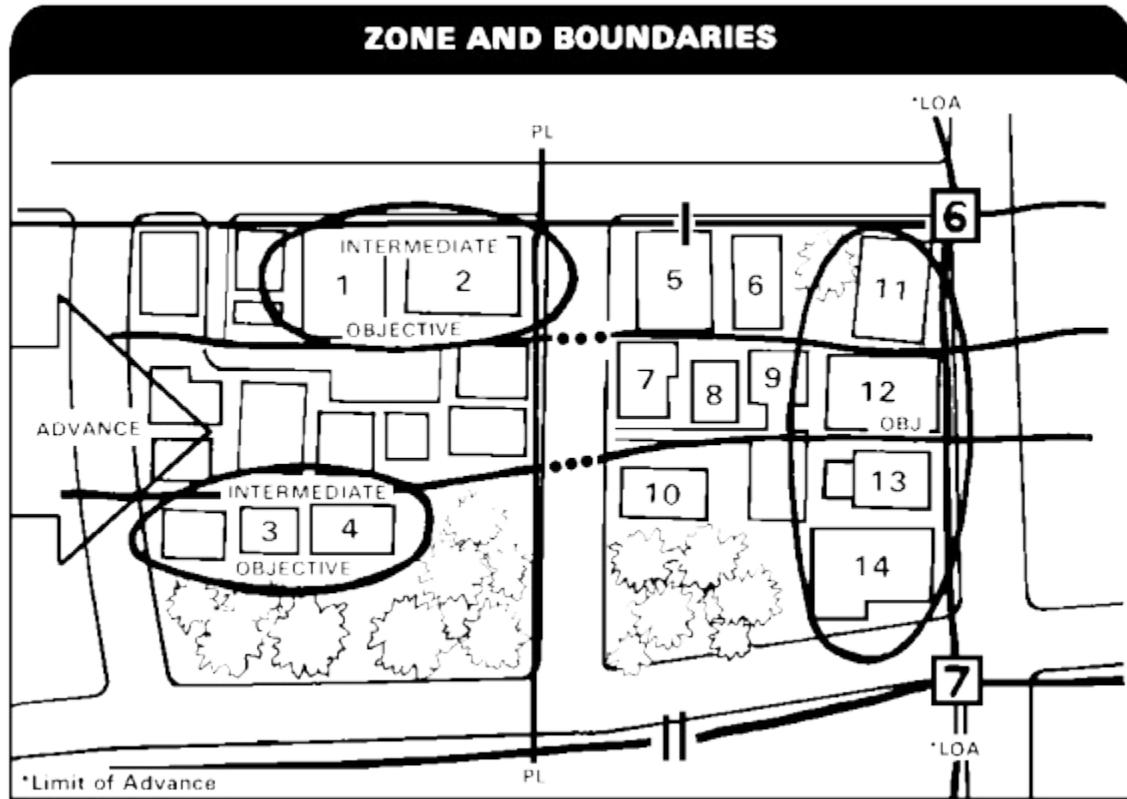
When a rapid advance has been ordered or when conducting a hasty attack, a battalion may be directed not to clear its entire zone.

## PHASELINES

As important control measures, phaselines can be used to report progress or to control the advance of attacking units. Principal streets, rivers, and railroad lines are suitable phaselines. Phaselines should be on the near side of the street or open area. In systematic clearing, a unit may have the mission to clear its zone up to a phaseline. In that case, the unit commander would pick his own objectives when assigning missions to his units.

## BOUNDARIES/ZONE OF ATTACK

Battalion and company boundaries are usually set within blocks so that a street is included in a company zone. Boundaries must be placed to insure that both sides of a street are included in the zone of one unit.



## CHECKPOINTS AND CONTACT POINTS

These are planned at street corners, buildings, railway crossings, bridges, or any other easily identifiable features. Check-points aid in reporting locations and controlling movement. Contact points are used to designate specific points where units make physical contact.

## ATTACK POSITION

This position may be occupied by forward units to make last-minute preparation and coordination. When feasible, troops enter and leave the attack position when visibility is poor to avoid being seen by the enemy.

## FRONTAGES

A unit's assigned frontage for the attack of an urban area will depend on the size of buildings and the resistance anticipated. A company normally attacks on a one- to two-block front, and a battalion on a two- to four-block front, based on city blocks averaging 175 meters in width.

## TIME OF ATTACK

The first phase of an attack should be conducted when visibility is poor, especially when open areas must be crossed. Troops should exploit poor visibility to cross open areas, to gain access to rooftops, to infiltrate enemy areas, and to gain a foothold. If the attack must be made when visibility is good, smoke should be used to conceal movement.

## **THE FORMATION**

In an attack, the formation used depends on the width and depth of the zone to be cleared, the character of the area, enemy resistance, and the formation adopted by the next higher command. Normally, a battalion will have two companies forward.

## **THE RESERVE**

The reserve should be mobile and prepared for commitment. The cover in urban areas allows it to keep close to the forward units.

Battalion reserves will normally follow one to two blocks to the rear of the lead company. If a company reserve is available, it will normally follow within the same block so that it can immediately influence the attack.

**A unit with a "reserve" mission may have one or more of the following tasks:**

- **Attacking from another direction.**
- **Exploiting an enemy weakness or friendly success.**
- **Clearing bypassed enemy positions.**
- **Securing the rear or a flank.**
- **Maintaining contact with adjacent units.**
- **Reinforcing a forward unit by fire.**

## **CONDUCT OF THE HASTY ATTACK**

### **FINDING AN ENEMY WEAK POINT**

In a movement to contact near an urban area, a battalion commander may have his lead unit reconnoiter to find a weak point. The lead unit should reconnoiter aggressively and, on finding a weak point, either make contact and fix the enemy or seize the area to secure it for the following units. Only those buildings necessary to provide security for the attack are cleared.

### **MOVEMENT THROUGH THE WEAK POINT**

Once the lead unit is engaged, the battalion commander will order the rest of his unit to pass through. The lead unit must maintain contact with the enemy and help the rest of the battalion pass through. Depending on the degree of resistance, the battalion commander may order the lead unit to attack, or order it to fix the enemy while another unit leads the rest of the battalion through the weak point. As each unit enters the urban area, it is responsible for its own security, but clears only those parts of the

area essential for its maneuver. Units may be assigned objectives within the area that must be seized quickly.

If a key feature is captured, it should be secured quickly. If an opportunity arises to continue the attack, clearing buildings will usually be left for following units.

## **CONDUCT OF THE DELIBERATE ATTACK**

In a deliberate attack on an urban area, the area is first isolated, then a foothold is seized, and finally the area is cleared.

### **ISOLATING AN URBAN AREA**

Isolation is achieved by seizing dominant terrain from which the attackers can control approaches into and out of the urban area. Tank-heavy elements supported by ATGMs, mortars, and artillery are employed using the dominant terrain to isolate the built-up area from reinforcement and resupply.

### **SEIZING A FOOTHOLD**

When the area has been isolated, the attacker next seizes a foothold, preferably from an unexpected direction and when visibility is poor. The attacker uses smoke and direct and indirect fire weapons to suppress the defender's ground observation and direct fire on the approaches into the urban area. The lead unit advances to the edge of the urban area and seizes structures from which it can continue the attack. Artillery and mortar fire is used to cover the advance of the attacking units and to suppress enemy weapons. Supporting weapons may be used to blow gaps through barbed-wire obstacles. Smoke may be used to screen friendly troop movement. The attacking unit may use the foothold as a place to reorganize and displace weapons to positions where they can support the continuation of the attack. Supporting weapons may also have to help protect the foothold area from counterattack.

### **USE ARTILLERY AND MORTAR FIRE**

### **CLEARING OF THE URBAN AREA**

After **isolation** and **seizure of a foothold**, the attacking force may clear the urban area with a systematic block-by-block, house-to-house reduction, or by moving quickly through the town while clearing specified critical areas and key buildings. The number of buildings to be cleared depends on the mission, the size of the town, the construction and

arrangement of the buildings, the enemy disposition and strength, and the size and composition of the attacking force.

### **DIVIDE AREA INTO COMPANY ZONES**

When the urban area is large and heavily fortified or when the mission requires complete clearing out of enemy troops, the area should be divided into company zones of attack. This can result in heavy fighting as each zone is systematically searched and cleared--house by house, block by block. Each company must clear its zone completely, leaving no enemy in its rear. This helps protect them from surprise attacks on their rear, secure their lines of communications, and keep support and reserve units from becoming involved in unexpected enemy action.

When the urban area is small or lightly defended, when the plan calls for a rapid advance into the area to seize a critical feature, or when a part of the area must be isolated, reserves and following units may be ordered to clear sections of the area which have been bypassed or only hastily cleared by the leading units. Close coordination between forward and following units is essential to prevent combat between friendly elements.

As each forward unit seizes an objective, it consolidates and reorganizes before continuing toward its next objective.

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## **COMMON OFFENSIVE OPERATIONS IN URBAN AREAS**

### **BATTALION LEVEL**

Although the following examples describe the actions of a mechanized infantry battalion task force, all of these actions could be modified for use by any type of infantry unit.

***Deliberate attack.*** Because the companies or company teams may become isolated during the operation, some support elements which are normally only in support are **attached** to them. As shown

below, Team B and Company C, the forward units which will clear the village, each has a squad of engineers attached. The tanks will be used to hit hardened targets protected by buildings or rubble. They may also be used to blow an entry point in buildings when the normal entrances are covered by enemy fire. The CEV will be brought forward when necessary for similar tasks against tough buildings and to clear rubble.

The objective area sits astride a major road and must be seized so that friendly forces can use the road to continue the attack. It is dominated by high ground on either side. It, and the surrounding terrain, is defended by enemy motorized rifle troops in platoon strongpoints.

The task force (TF) is organized as shown.

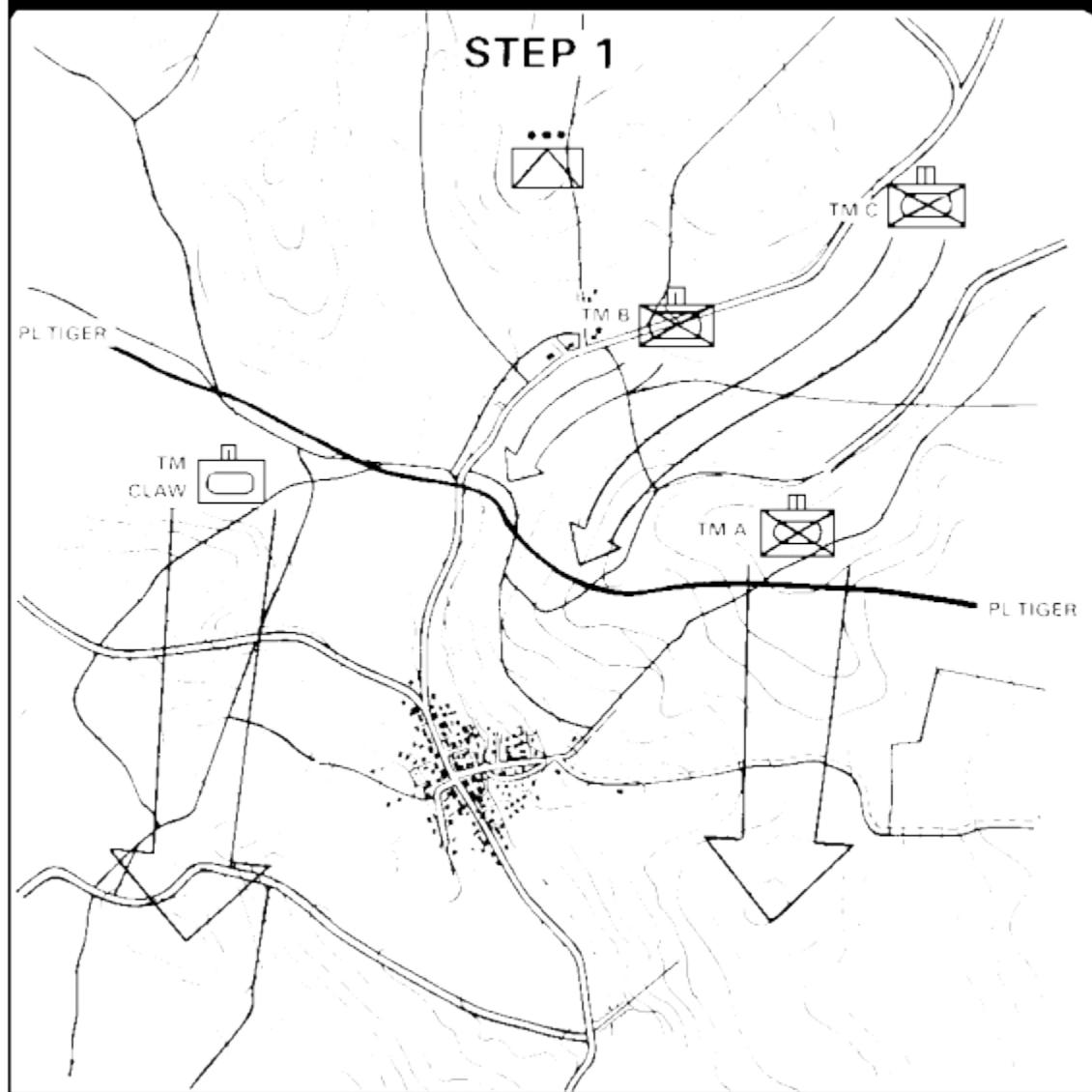
<u>TEAM A</u>	<u>TEAM B</u>	<u>COMPANY C</u>
A/1-72 MECH (-)	B/1-72 MECH (-)	C/1-72 MECH
3/A/1-1 ARMOR	2/A/1-1 ARMOR	1 AT SEC
1 AT SEC	1 AT SEC	1 REDEYE TM
1 REDEYE TM	1 REDEYE TM	3/2/A/14 ENGR
2/2/A/14 ENGR		
<u>TEAM CLAW</u>		
A/1-1 ARMOR (-)		
3/A/1-72 MECH (-)		
3/B/1-72 MECH (-)		
2 AT SEC		
1 REDEYE TM		
<u>TF CONTROL</u>		
SCOUTS		
HVY MORT PLT		
AT PLT (-)		
REDEYE SEC (-)		
2/A/14 ENGR (-)		
CEV		

The TF commander plans to conduct a deliberate attack of the village. **The steps in the attack will include:**

- isolating the village,
- seizing a foothold, and
- clearing the buildings.

To isolate the village the TF commander orders Team A and Team CLAW to seize the high ground on either side of the village (**Step 1**).

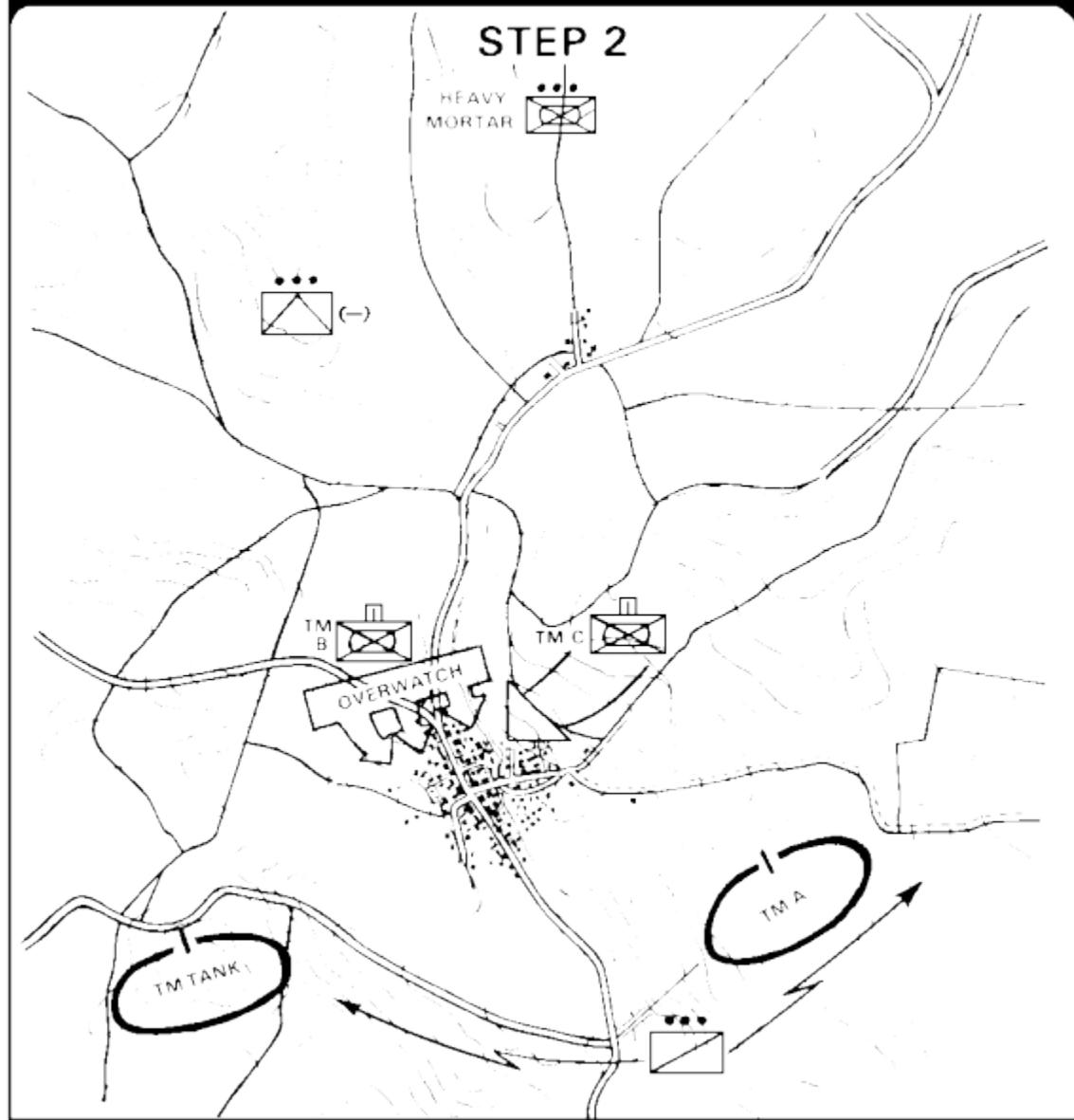
## ISOLATION OF THE VILLAGE



The scout platoon helps isolate the village by screening between the two forward teams.

With team B and the antitank (AT) platoon (-) overwatching, Company C attacks to seize the foothold (**Step 2**). The TF mortars and supporting artillery fire smoke to conceal Company C's approach.

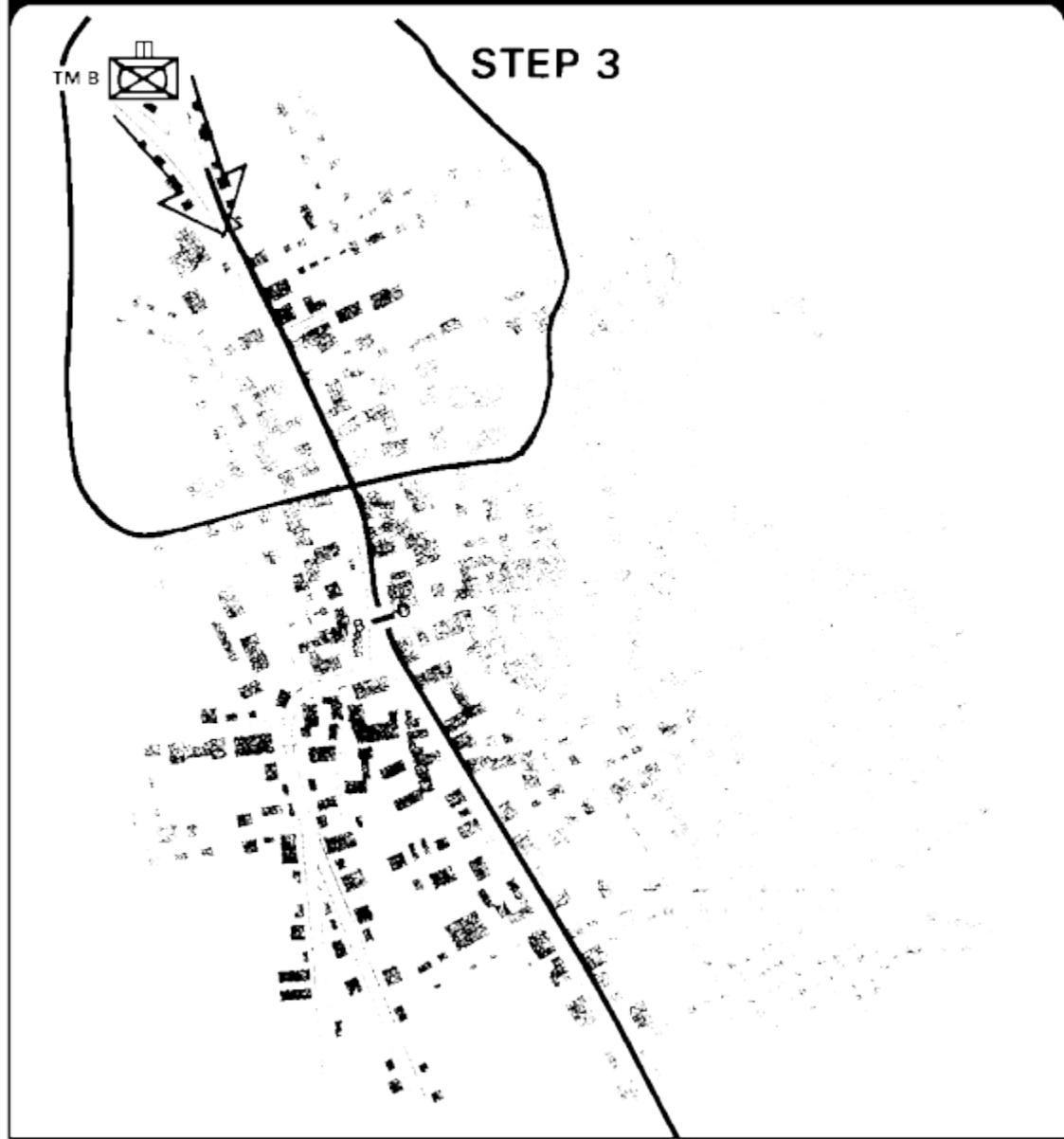
## COMPANY C ATTACKS TO SEIZE A FOOTHOLD



When they have secured the foothold, Team B moves forward to join Company C in the foothold. The AT platoon (-) continues to overwatch.

The village is divided into two company zones. Each company clears its designated zone, building by building (Step 3).

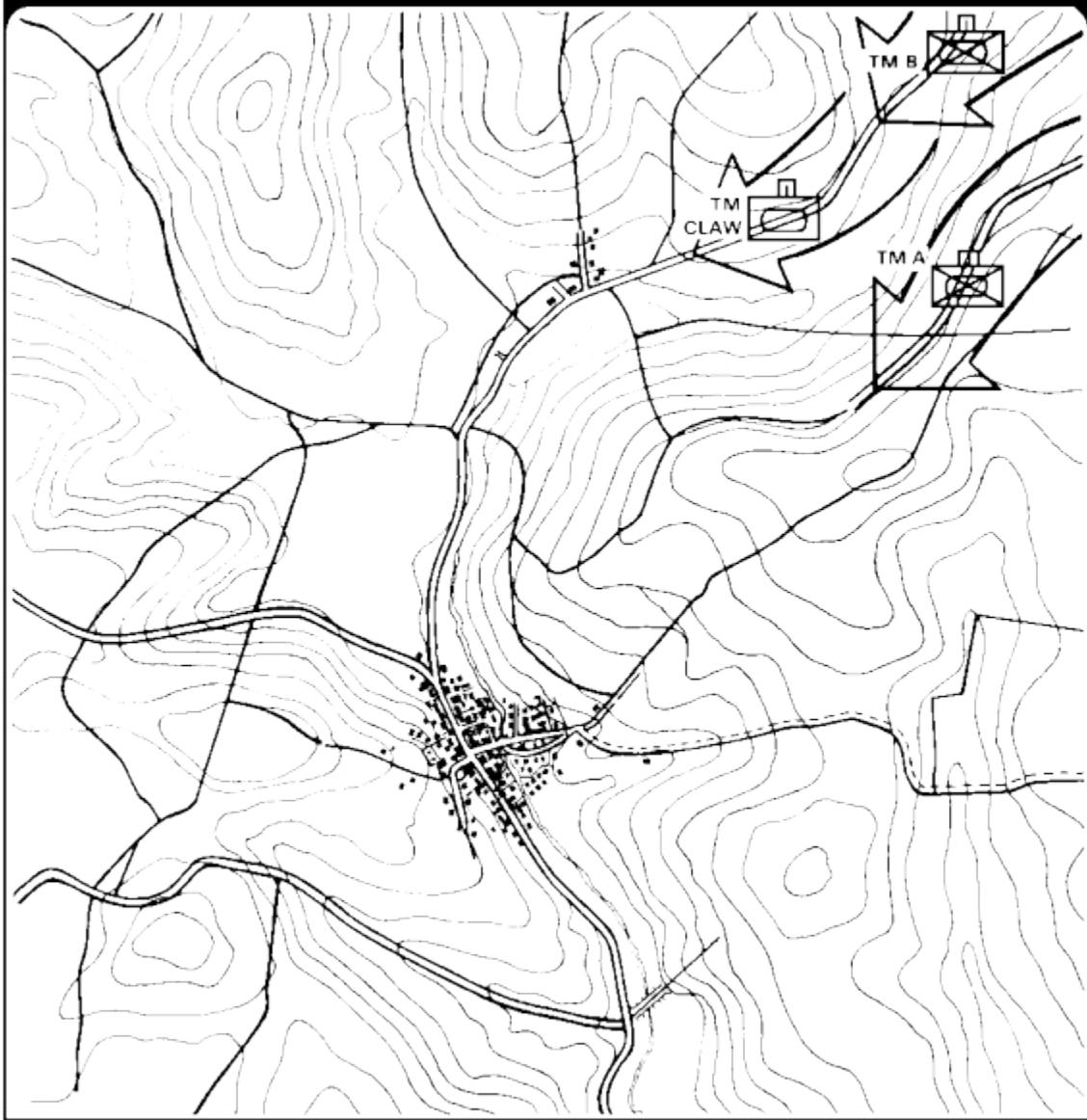
## CLEARING ZONES



This is just one typical mission that a battalion could be required to accomplish. Some other missions are the following:

**Hasty attack against an outpost in an urban area.** A TF in a movement to contact may encounter an outpost in a small group of buildings. This situation does not call for a deliberate attack on the built-up area, but the outpost should be eliminated so that the following units may move along the route.

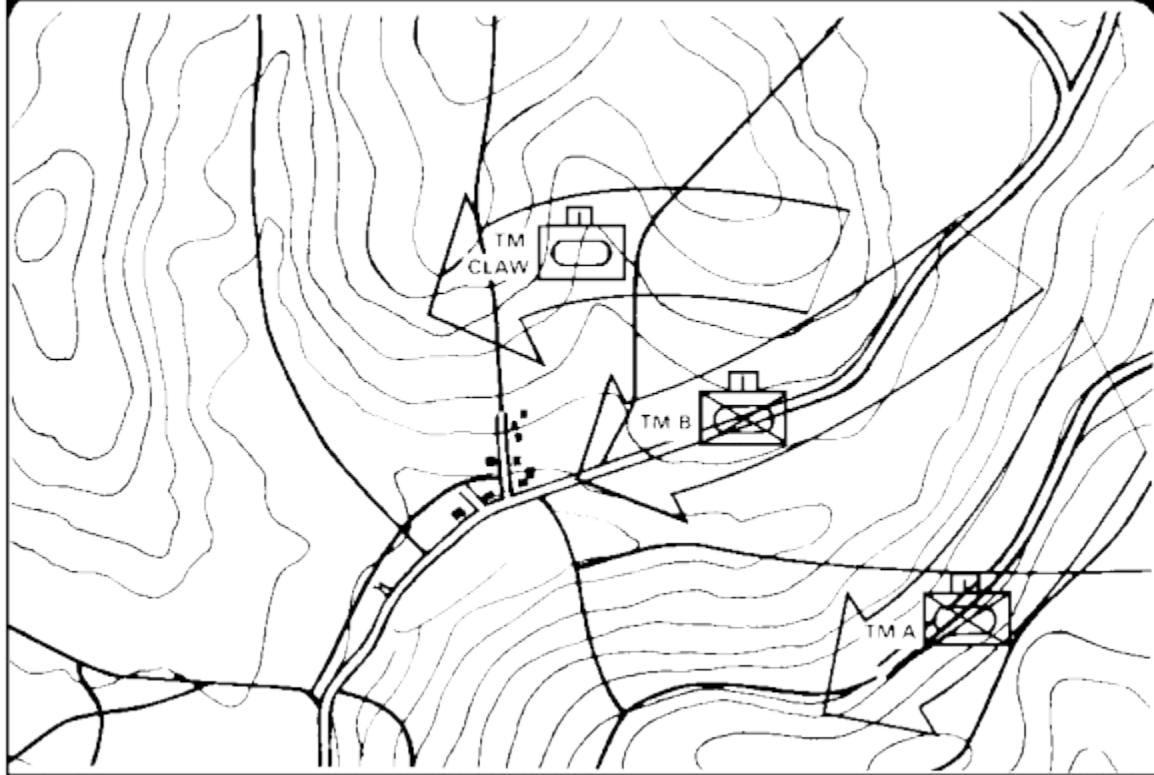
## MOVEMENT FORMATION



The TF commander must maintain the momentum of his TF and commit only enough combat power to neutralize the out-post. He orders the lead team (Team CLAW) on the west axis to bypass the village and continue moving. Likewise, Team A on the other axis continues its movement. Team B, the trailing team on the west axis, is ordered to clear the village and then catch up with the rest of the TF.

The team ordered to clear the outpost should have priority of fire. It may have additional TOWs attached from the AT platoon to help isolate and neutralize the outpost.

## HASTY ATTACK TO CLEAR A BUILT-UP OUTPOST



**The seizure of a key objective.** Many urban areas are built around key features, such as road junctions or bridges. In this example, the key feature is a bridge over a river. A normal deliberate attack would not succeed here because it would give the enemy enough time to destroy the bridge. Instead, the commander must plan a rapid advance through the urban area, leaving the task of clearing to following units.

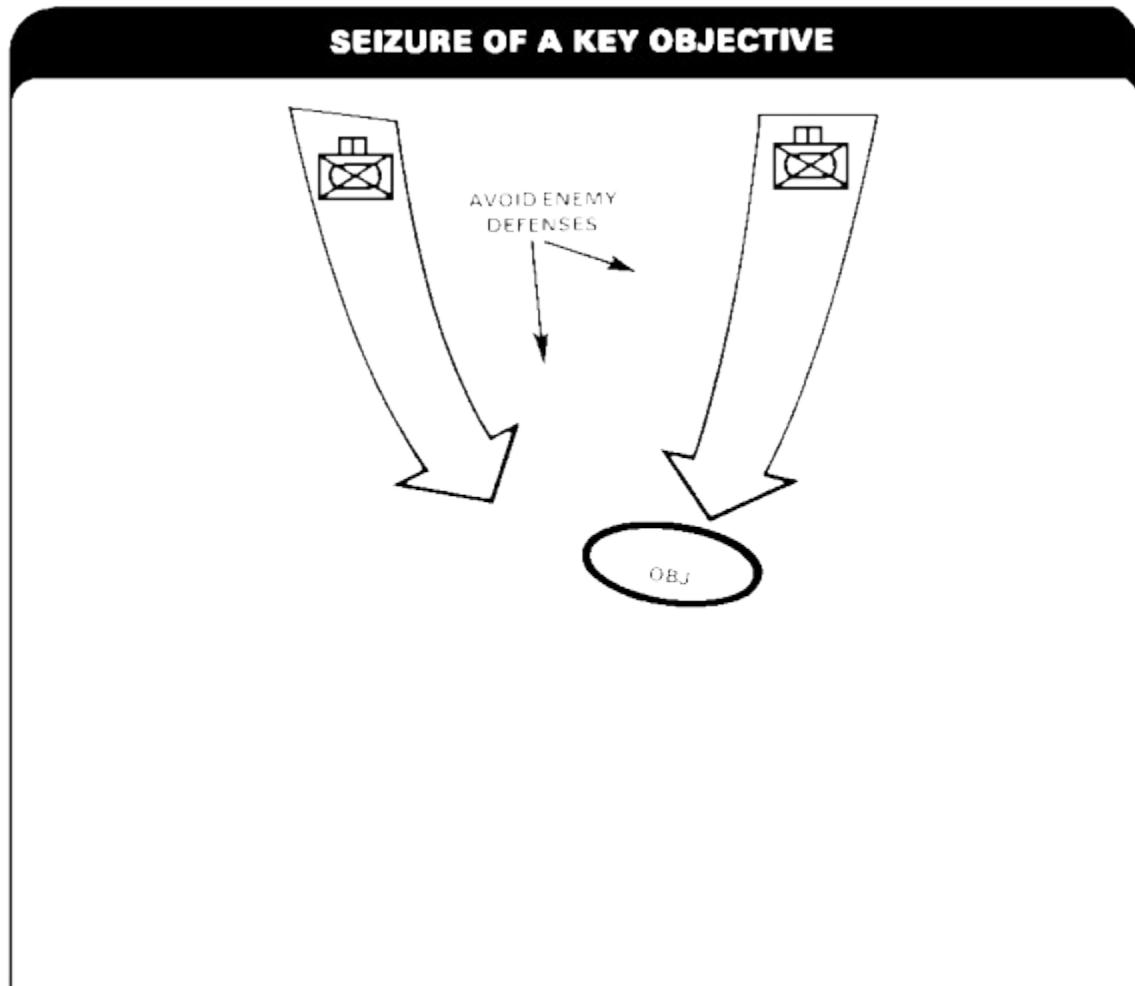
This type of operation has the highest chance of success when the enemy has not had time to set up a well-established defense. Because of the importance of the objective, the prime considerations are to get through the area fast, before the enemy can react, and to seize the objective while it is still intact.

The TF should attempt to avoid contact with the enemy. If enemy resistance is encountered, it should be bypassed. Time-combat must be avoided. The TF must get to the bridge any way possible.

In this case, the TF commander organizes his TF as for movement on two axes. This allows him more flexibility to react to enemy contact. The lead unit on each axis reconnoiters as it moves. Lead units must find enemy positions, fix them by fire, and quickly bypass them.

The units move mounted toward the urban area. On reaching the edge of the urban area, troops stay mounted until they meet enemy resistance. Enemy contact, if made, should not slow the advance. Platoons are dropped off as necessary to take up blocking positions and secure the TF advance.

Once the objective is seized, the TF establishes a perimeter defense. The companies clear buildings and expand the size of the perimeter until it is large enough to secure the bridge against enemy action. Attached engineers check the bridge and clear it of any explosives.



#### DEFENSES MAY BE WEAK

*Infiltration into the outskirts of town.* This example describes the actions of an infantry battalion with engineers attached. With some modification, it could also apply to a dismounted mechanized infantry battalion.

The outskirts of a town may not be strongly defended. Its defenders may have only a series of antitank positions, security elements on the principal approach, or positions blocking the approaches to key features in the town. The strongpoints and reserves are deeper in the city.

It may be possible for a battalion to seize a part of the town by infiltrating platoons and companies between those enemy positions on the outskirts. Moving by stealth on secondary streets, using the cover and concealment of back alleys and buildings, the battalion may be able to seize key street junctions or terrain features, isolate enemy positions, and help following units pass into the urban area.

## **CLEARING OF THE URBAN AREA**

After **isolation** and **seizure of a foothold**, the attacking force may clear the urban area with a systematic block-by-block, house-to-house reduction, or by moving quickly through the town while clearing specified critical areas and key buildings. The number of buildings to be cleared depends on the mission, the size of the town, the construction and arrangement of the buildings, the enemy disposition and strength, and the size and composition of the attacking force.

### **POOR VISIBILITY AIDS**

#### **INFILTRATION**

Such an infiltration should be done when visibility is poor. It will have a better chance of success if there are no civilians in the area.

The battalion is best organized into two infiltration companies with engineers attached to each and a reserve company with engineers attached. Each company should have an infiltration lane from 300 to 800 meters wide.

The infiltrating companies advance on foot, with stealth, using available cover and concealment. Mortar and artillery fire can be used to divert the enemy's attention and cover the sound of infiltrating troops.

The TOWs take up positions from which they can fire on any enemy tanks or armored personnel carriers. The scouts screen the battalion's more vulnerable flank.

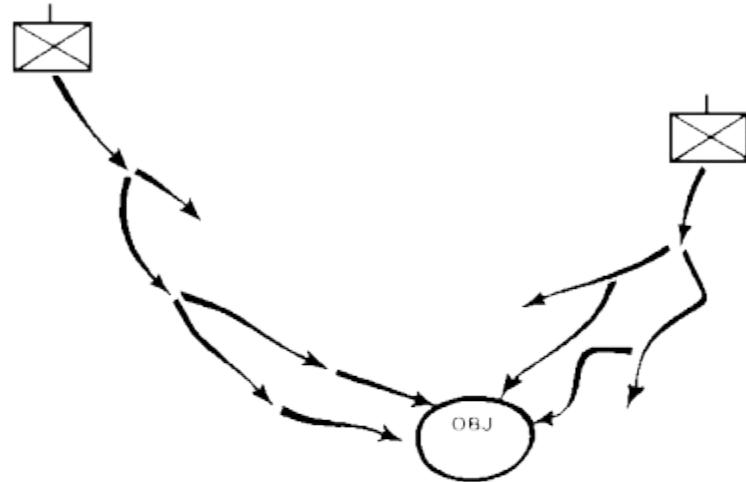
As the companies move into the built-up area, they secure their own flanks. Security elements may be dropped off along the route to warn of an attack on a

flank. Engineers assist in breaching or bypassing minefields or obstacles encountered. Enemy positions are avoided, but reported.

The infiltrating companies proceed until they reach their objective. At that time, they consolidate and reorganize, contact each other, and arrange for mutual support. They patrol to their front and to the flanks and establish contact with each other. The company commander may establish a limit of advance to reduce chances of enemy contact or to insure safety from friendly forces.

If the infiltration places the enemy in an untenable position and he has to withdraw, the rest of the battalion is brought forward for the next phase of the operation. If the enemy does not withdraw, the battalion will have to clear him out before the next phase of the operation.

## INFILTRATION



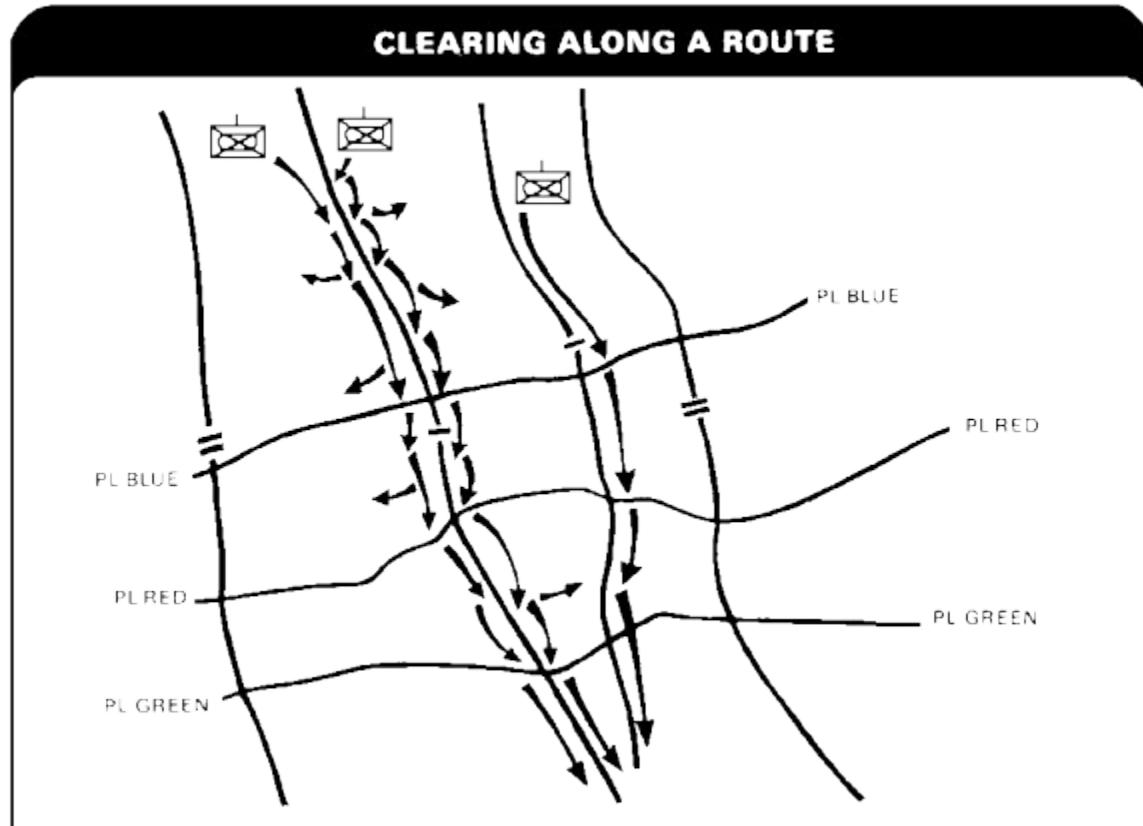
**Securing a route in a built-up area.** A mechanized infantry battalion may have to clear buildings along a route through a city to secure the route.

How quickly the battalion can clear the buildings depends on the enemy resistance and the size and number of buildings. In the outlying area, the forward units proceed by bounds from road junction to road junction. Other platoons provide flank security by moving down parallel streets and by probing to the flanks.

Depending on the required speed and the enemy situation, the infantry may either move mounted or dismounted. The platoons move down the widest streets, avoiding the narrow streets. Each squad overwatches the squad to its front, keeping watch on the opposite side of the street. The overwatching carrier teams are secured by dismounted troops. Except for those troops, the rest of the infantry may stay mounted, until required to dismount by enemy fire or to attack an enemy-held building.

When contact with the enemy is made, the tanks support as usual. Supporting fire fixes and isolates enemy positions. The dismounted troops maneuver to attack those positions.

Phaselines can be used to control the rate of the companies' advance and other action. For example, at each phaseline, the forward companies might reestablish contact, reorganize as necessary, and then continue the clearing action.



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**CHAPTER 5**

**Combat Support  
and  
Combat Service Support**

## GENERAL

Urban combat places heavy demands on combat support and combat service support. Chapter 3, Offensive Operations, and Chapter 4, Defensive Operations, discuss the employment considerations of combat support and combat service support elements in the offense and defense; however, a more detailed discussion is required to explain the complexities of this support in the urban environment.

## COMBAT SUPPORT

Combat support is fire support and other assistance provided to combat elements. It normally includes artillery, air defense, aviation (less air cavalry), engineers, military police, communications, and electronic warfare.

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[GENERAL](#)

[COMBAT SUPPORT](#)

COMBAT SERVICE SUPPORT

## FIELD ARTILLERY

A battalion or battalion task force is normally supported by a field artillery battalion in direct support (DS) to the brigade. In some situations, a battery will be placed in DS of a battalion task force. Supporting artillery may be used in either a direct or an indirect fire role. When planning for fire support in an urban area, the battalion commander, in coordination with the fire support officer (FSO), **considers the following:**

- **Target acquisition will be more difficult because of the increased cover and concealment afforded by the terrain.**
- **Indirect fires must be tightly controlled, since urban fighting results in opposing forces fighting in close combat.**
- **The effects of munitions will be limited by buildings.**
- **Fire restrictions (such as a fire area or a no-fire area) may be imposed to protect civilians and critical installations.**

- **Centralized control of field artillery at the DS battalion level makes it easier to mass organic and reinforcing field artillery. Fires that are massed and surprise the enemy, optimize the effects of artillery.**
- **The 155-mm and 8-inch self-propelled howitzers are effective in neutralizing concrete targets with direct fire. Concrete-piercing 155-mm and 8-inch rounds will penetrate 36 inches and 56 inches, respectively, of concrete at ranges of up to 2,200 meters. The 8-inch self-propelled howitzer must be closely protected when used in a direct fire mode because it has no armor protection for its crew.**
- **Restriction may be placed on artillery use in order to reduce rubble on avenues of movement that may be used by friendly forces.**

The use of airburst fires is an effective means of clearing snipers from rooftops. High-explosive shells with delay fuzes may be effective against enemy troops in the upper floors of buildings, but because of the overhead cover provided by the building, such shells will have little impact on enemy in the lower floors.

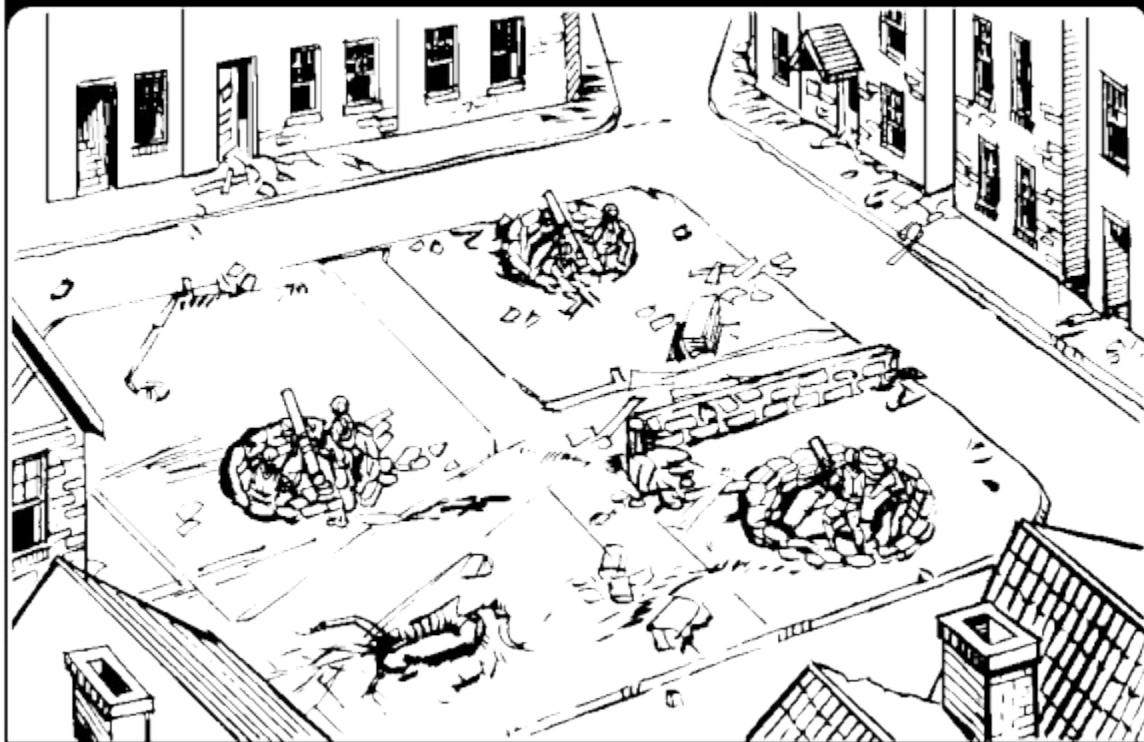
The planning and use of field artillery in offensive and defensive operations is also addressed in chapters 3 and 4.

## **MORTARS**

Mortars are well suited for urban combat because of their characteristic high trajectory. The protection the enemy gets from buildings, however, reduces the effectiveness of mortar rounds, especially the 81-mm rounds. The mortars can fire high explosive (HE), white phosphorus (WP), or illumination. The infantry company's mortars offer the most responsive fire.

Mortars should be positioned on firm ground in areas where their fires are not masked by adjacent buildings. If the mortars are ground mounted and only concrete areas are available, they can be fired from a sandbagged emplacement.

## MORTAR EMPLACEMENT IN A CITY



Like other combat elements in urban terrain, mortars may have to provide their own security, if it is not provided by the rifle platoons or headquarters elements.

## NAVAL GUNFIRE

When a unit is operating near a coastline with gunfire support ships within range, naval gunfire can provide effective fire support. If naval gunfire is used, a shore fire control party (SFCP) of Marine personnel may be attached to the battalion. An FSCP has one liaison team and one spotting team, which provide ship-to-shore communications. The liaison team works in the fire support coordination center, while the spotting team is attached to one of the committed companies.

## TACTICAL AIR

Close air support. A battalion may be supported by Air Force, Navy, Marine, or allied fighters and attack aircraft while fighting in urban terrain. The employment of close air support (CAS) depends on the following considerations:

### Shock and Concussion

Heavy air bombardment provides great tactical advantages to an attacker. The shock and concussion of the bombardment reduces the efficiency of defending troops and destroys defensive positions.

## Rubble and Debris

The rubble and debris resulting from air attacks may increase the defender's cover while creating significant obstacles to the movement of attacking forces.

## Proximity of Friendly Troops

The proximity of opposing forces to friendly troops may require the use of precision-guided munitions, and can require the temporary disengagement of friendly forces in contact.

## Indigenous Civilians or Key Facilities

The use of air weapons may be restricted by the presence of civilians or the requirement to preserve key facilities within a city.

## Limited Ground Observation

Limited ground observation may require the use of airborne forward air controllers (FAC).

*Offensive operations.* CAS may be employed during offensive operations to--

- support the isolation of the city by interdicting entry and exit routes;
- support attacking units by reducing enemy strongpoints with precision-guided munitions; and
- conduct tactical air reconnaissance and provide detailed intelligence of enemy dispositions, equipment, and strengths.

## AIR DEFENSE

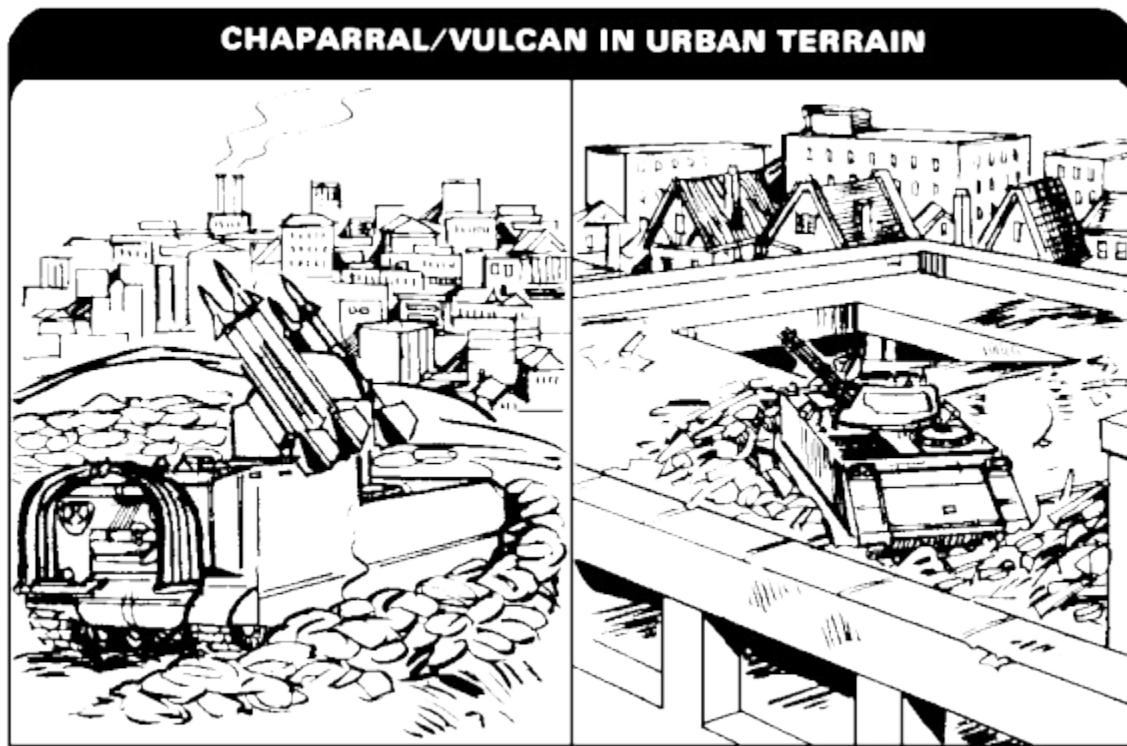
Basic air defense doctrine will not change when operating in urbanized terrain. The fundamental principles of mix, mass, mobility, and integration are all applicable to the employment of air defense assets.

**The ground commander must consider the following when developing his air defense plan:**

- Enemy air targets such as principal lines of communications, road and rail networks, and bridges are often found in and around urban areas.
- It may be difficult to find and occupy good firing positions for long-range air defense missile systems in the urban environment, and thus the number of weapons the commander can employ may be limited.
- Movement between positions is normally restricted in urban areas.
- Long-range systems can provide air defense cover from positions on or outside of the edge of the city.
- Radar masking and degraded communications will reduce air defense warning time for all units. Air defense control measures must be adjusted to permit responsive air defense within this reduced warning environment.

*Chaparral and Vulcan.* Positioning of Chaparral and Vulcan weapons in urban terrain will often be limited to more open areas without masking, such as parks, field, and rail yards.

Towed Chaparral and Vulcan (*separated from their prime movers*) may be emplaced by helicopter on rooftops in dense urban areas to provide protection against air attacks from all directions. This should be accomplished only when justified by the expected length of occupation of the area and the enemy air threat.



**Redeye.** The Redeye section provides protection for battalions as in any other operation. When employed within the built-up area, rooftops normally offer the best firing positions.

**Machineguns.** Heavy machineguns emplaced on rooftops can also provide additional air defense.

## ARMY AVIATION

Army aviation support of urban operations includes attack helicopters, and utility helicopters for airmobile operations, command and control, relocation of combat or combat support units, resupply operations, observation, reconnaissance, operation of sensory devices, and radio retransmission. When using Army aviation, the commander considers the enemy air situation, enemy air defenses, terrain in or adjacent to the city, and the availability of Army or Air Force suppression means.

**Offensive missions.** Missions for Army aviation in support of urban offensive operations include:

- **Airmobile operations to secure key terrain adjacent to the urban area, and to secure key objectives when the area is lightly defended or when enemy fires have been suppressed.**
- **Employment of attack helicopters with aerial weapons to support the commander's scheme of maneuver in, or adjacent to, the urban area.**
- **Aerial resupply and medical evacuation.**

- **Command and control by providing rapid displacement of command elements to critical areas, and in some circumstances providing an airborne command platform.**
- **Aerial retransmission.**
- **Intelligence-gathering operations.**

## USE OF HELICOPTERS

It can be advantageous to use helicopters to conduct air assaults onto rooftops in urban combat. Careful analysis of the rooftops must be made prior to the start of the mission. In many of the more modern cities, office buildings often have helipads on their roofs which are ideal for landings. Other buildings, such as parking garages, are usually strong enough to support the weight of a helicopter. The delivery of troops onto a building can also be accomplished by rappelling from the helicopter or jumping out of the helicopter while it hovers just above the roof. When approaching rooftops, care must be taken to insure that there are no obstacles that could damage the helicopters or injure the troops, such as electrical wires, telephone poles, antennas, or enemy-emplaced mines and wire.

**Small-scale assaults.** There may be occasions when it is necessary to land small units onto the roof of a key building. Success in such an operation depends on minimum exposure and the suppression of all enemy positions that could fire on the helicopter. Depending on the construction of the roof, rappelling troops from the helicopter may be more advantageous than landing on the rooftop. The rappel is often more reliable and safer for the troops than a jump from a low hover. With practice, a rappel insertion can be accomplished with a minimum of exposure.

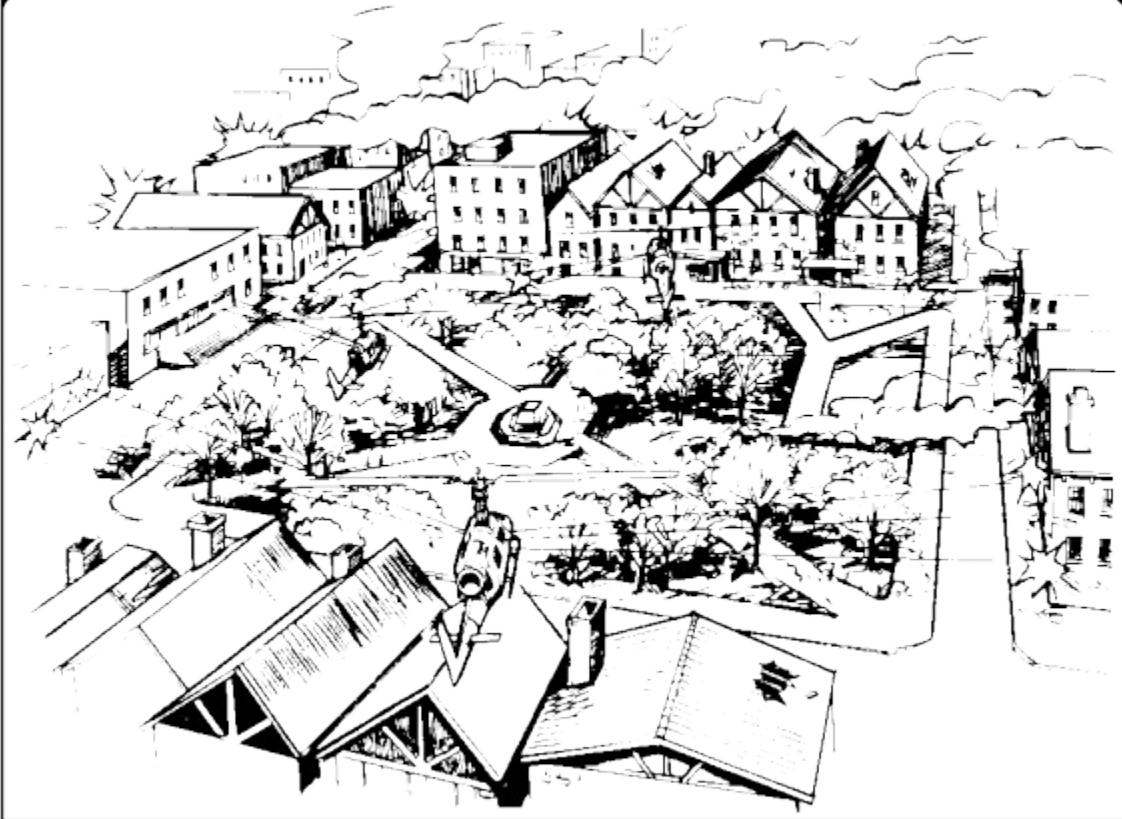
**Large-scale assaults.** For larger scale air assaults, rooftop landings are not practical, so open spaces within the urban area must be used. Open spaces, such as parks and parking lots, are common urban features. Several spaces large enough for helicopter operations normally can be found within 2 kilometers of a city's center.

**Movement of troops and supplies.** In an urban battle, heliborne troop movement may become a significant requirement. Units engaged in house-to-house fighting normally suffer more casualties than units fighting in open terrain. The casualties often must be replaced quickly with fresh troops. At the same time, roads are likely to be crowded with resupply and evacuation vehicles, and may also be blocked with craters or rubble.

Helicopters provide a responsive means to move troops by flying nap-of-the earth flight techniques down selected streets already secured and cleared of obstacles. The aircraft deliver the troops at the last covered position short of the fighting and then return without exposure to enemy direct fire. similar flight techniques can be used for aerial resupply and casualty evacuation.

**Air assaults.** Air assaults into enemy-held territory are more difficult. One technique is to fly low down a broad street or commercial ribbon, with attack helicopters and door gunners from utility helicopters suppressing buildings on either side of the street. Artillery fires can be scheduled to impact just prior to the helicopters' fly-by. Feints and demonstrations in the form of false insertions can confuse the enemy as to the real assault landings.

## URBAN AIR ASSAULT



## ENGINEERS

During urban fighting, divisional engineers should be attached to the dispersed maneuver elements; for example, one engineer company to each committed brigade, one platoon to each battalion or battalion task force, and a squad to each company or company team. Most engineer manual-labor tasks, however, will have to be completed by infantry units, with reinforcing engineer heavy-equipment support and technical supervision.

**Offensive missions.** Engineers may perform the following missions during offensive operations:

- **Conduct a technical reconnaissance to determine the location and type of enemy obstacles and minefields, and to make breaching recommendations.**
- **Clear barricades and heavy rubble with earth-moving equipment to assist forward movement.**
- **Use the fires from the combat engineer vehicle (CEV), or hand-emplaced demolitions to destroy fortifications and strongpoints that cannot be reduced with the maneuver unit's organic assets.**
- **Use the CEV to destroy structures or clear rubble.**
- **Lay mines to protect flanks and rear areas.**

**Defensive missions.** Engineers may perform the following missions during the defense of an urban area:

- **Construct obstacles.**

**Messengers and visual signals.** Messengers and visual signals can also be used in built-up areas. Messengers must plan routes that avoid pockets of resistance. Visual signals must be planned in such a way that they can be seen from the buildings.

**Sound.** Sound signals are normally not effective in urban areas because there is too much other noise.

**Urban systems.** If existing civil or military communications facilities can be captured intact, they can also be used by the infantry battalion. A civilian phone system, for instance, can provide a reliable, secure means of communication if codes and authentication tables are used. Other civilian media can also be used to broadcast messages to the public.

## COMMUNICATIONS

Buildings reduce the range of FM radios. To overcome this difficulty, battalions can set up retransmission stations or radio relays. These are most effective when placed in high areas. Antennas should be camouflaged by putting them near steeples or water towers. Remotely mounting antennas away from radios or placing them on rooftops is another way to solve the range problem.

**Wire.** Wire is a more secure and effective means of communications in built-up areas. Wires should be laid overhead on existing poles or underground to prevent vehicles from cutting them.

## LESSON 3

# PLAN AN ATTACK ON URBANIZED TERRAIN AT COMPANY/TEAM LEVEL

The task taught in this lesson consists of identifying combat missions for an attack on urbanized terrain at company/team level.

**Task:** Plan an attack on urbanized terrain at company/team level.

**Condition:** Given extracts of doctrinal literature, an offensive tactical situation for a team commander, and a series of multiple-choice questions relating to tactical reasoning or tactical situations.

**Standard:** The attack plan will be developed IAW subcourse text and will include the use of artillery and other types of combat support.

## EXERCISE 1: IDENTIFYING COMBAT MISSIONS FOR AN ATTACK ON URBANIZED TERRAIN AT COMPANY/LEVEL AND COMPLETING PARAGRAPH 3 OF A COMPANY/TEAM OPORD

Common offensive operations for a company/team on urbanized terrain include:

- The company attack of a block in an urban area
- Hasty attack against an outpost in an urban area
- The seizure of a bridge
- Movement to contact on a commercial ribbon
- The seizure of a traffic circle.

### The Company Attack of a Block in an Urban Area

For this mission, a company should be reinforced with tanks and engineers.

The mission can be accomplished either by an infantry unit or by a dismounted mechanized unit using its carrier-mounted guns for fire support.

This operation is characterized by platoon attacks supported by both direct and indirect fire. Success depends on:

- Isolating the enemy positions assigned as platoon objectives
- Suppressing enemy weapons
- Seizing a foothold in the block
- Building-by-building, room-by-room clearance.

In order to isolate a position, weapons are deployed so that they control the streets and the open areas between the buildings. Mortar fire between buildings helps to isolate them.

Tanks, machineguns, and other direct fire supporting weapons fire on the objective from covered positions. They fire from a series of positions, displacing from one to another for more and better fields of fire. Direct fire support tasks are assigned as follows:

- Machineguns fire along streets and into windows, doors, etc.
- TOW's and Dragons fire at enemy tanks and carriers
- Tanks fire at targets protected by walls and make entrances in buildings (mouseholes)
- Riflemen hit targets of opportunity.

Before an assault, smoke is deployed to conceal the assaulting platoon. The flanks of platoons are secured by direct fire weapons firing down nearby streets, and by employment of the reserve, if necessary.

Concealed by smoke and supported by direct fire weapons, an assaulting platoon attacks the first isolated building. The platoon must close in the building quickly while the enemy is still stunned by supporting fire.

The company commander must closely coordinate the assault with its supporting fire so that the fire is shifted at the last possible moment.

Each building is cleared systematically. After seizing the block, the company consolidates and reorganizes to repel a counterattack or to continue the attack.

A mechanized company would be organized on similar lines. The assault platoons should be dismounted. The carriers' caliber .50 machineguns and attached tanks can provide fire support.

### **Hasty Attack Against an Outpost in an Urban Area**

In this case, the team commander uses a form of fire and maneuver. His tanks and TOW's take up overwatch positions from which they can fire on the outpost, keep the enemy from escaping, and destroy any reinforcements.

The team's rifle platoons then move into the village. They do not attack head on, but from a covered route so as to hit the outpost at a vulnerable point. As the platoons approach the outpost, smoke screens its movement, and supporting fire is shifted. Once the platoons close on the outpost, they clear the buildings quickly and consolidate. The company is then ready for its next mission.

### **The Seizure of a Bridge**

A bridge or overpass which spans a canal, highway, or railroad is an example of key terrain in a city. Therefore, seizing such a crossing point intact and securing it for friendly use is a likely mission for a rifle company. For this mission, a rifle company should:

- Clear the buildings on the near bank which permit a clear view of the bridge and the firing of supporting weapons
- Quickly suppress enemy weapons on the far bank with direct fire and smoke

- Seize a bridgehead (buildings which dominate the bridge) on the far bank by an assault across the bridge
- Secure a perimeter around the bridge, so that the engineers can clear any obstacles.

### **Movement to Contact on a Commercial Ribbon**

In a fast moving situation, a company may have a movement to contact through an urban area along a commercial ribbon. Similarly, a company may have to reconnoiter such a route in preparation for a TF attack. Such an action is generally followed by use of the route by the TF. That type of mission is best given to a mechanized company/team with an attached tank platoon.

The company/team should seize the key points of the commercial ribbon (crossroads, bridges, and overpasses, etc.) by a combination of actions:

- Between key points, the team moves with troops mounted behind its lead platoon, which is dismounted
- At key points, or when the enemy is contacted, the team moves dismounted to clear the key point or all enemy positions; tanks support the dismounted troops.

### **The Seizure of a Traffic Circle**

A company may have to seize a traffic circle to secure it for friendly use or to deny it to the enemy. This operation consists of seizing and clearing the buildings which control the traffic circle, bringing direct fire weapons into position to cover the traffic circle itself, and either clearing the routes of mines and obstacles so that they can be used by friendly traffic or laying mines to deny it to the enemy.

After gathering all available intelligence on the terrain, enemy, and population, the commander plans for the following steps:

- Isolate the objectives
- Under cover of tanks, ATGM's, and machineguns, seize and clear the buildings along the traffic circle
- Consolidate and prepare for counterattack.

Friendly troops should not venture into the traffic circle until it is under friendly control. A traffic circle is a natural kill zone.

An important platoon mission within the enemy team attack of a block in an urban area is the attack and clearance of a building.

### **Attack of a Building**

The most common platoon offensive mission in an urban area is the attack of a building. The platoon must kill the defenders and secure the building. The attack involves isolating the building to prevent the escape or reinforcement of its defenders (normally coordinated at company level), suppressing the defenders with tank, machinegun, and mortar fire, entering the building at the least defended point or through a hole breached by tank fire, and clearing the building. To clear it, troops normally go quickly to top floor and clear from the top down. There must be close coordination between the assault and support elements of the platoon, using radios, telephones, hand-and-arm signals, or pyrotechnics.

If a platoon is attacking a building independently, it should be organized with an assault element, a support element, and a security element to cover its flanks and rear. In addition to its own support element, the platoon can be supported by tanks, mortars, and other elements of the company.

If one platoon is attacking, supported by the rest of the company, security may be provided by the other rifle platoons.

The assault has three steps:

- Isolate the building
- Enter the building
- Clear the building methodically, room by room, floor by floor.

The clearing is done by the rifle squads, which pass successively through each other (leapfrogging) as rooms and floors are secured.

Platoons that clear buildings should be reinforced with engineers to help with demolition.

Proceed now to [\*\*Practical Exercise 1.\*\*](#)

## LESSON 3

### PRACTICAL EXERCISE 1

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**Note:** The following exercises are study aids. Print this sheet and write your answer in the space provided below each question. When you have finished answering all the questions for this lesson, compare your answers with those given by following the link at the bottom of this page. Review the lesson as necessary.

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1. For the mission of attacking a block in an urban area, a company should be reinforced with  and .
2. Tanks, machineguns, and other direct fire supporting weapons fire on the objective from .
3. Describe the sequence of events leading to the seizure of a block in an urban area, by a company/team.
4. Describe the four tasks that must be accomplished for a company/team to seize a bridge on urban terrain.
5. In order to isolate a position during a company/team attack of a city block, weapons are deployed so that they:
6. When moving between key points during a movement to contact on a commercial ribbon, a company/team will move:
  - A. Dismounted to clear the key point.
  - B. With troops mounted behind the lead platoon, which is dismounted.
  - C. With tanks in the lead supported by dismounted infantry.
  - D. With troops dismounted behind the lead platoon, which is mounted.

7. Describe the procedure for clearing a building.

8. In order, list the three steps of an assault of a building.


9. The clearing of a building is done by the

10. In this practical exercise, you are the commander of Tm B, TF 2-78 Mech developing your plan of attack. Use the following [Simulated Tactical Situation](#), [TF 2-78 OPORD](#), [Terrain Analysis](#), and Two Special Map A's: [Special Map A](#) (presently identified as 87976 Army-Ft. Benning, Georgia, 1980) furnished to you and [Special Map A](#) (presently identified to accompany Incl 1, Section III CA4C60/5 - Company Team Attack on Urbanized Terrain) to complete the [Tm B OPORD worksheet](#).

# SIMULATED TACTICAL SITUATION

## 1. General Situation:

- a. 1st Brigade, 52d Inf Div (Mech) has been attacking north for the last two days from vic of FRANKFURT, and halted at 031700 Sep\_\_\_\_ with 2-77 Mech on the left, TF 2-79 Mech on the right; TF 2-78 Mech and TF 2-4 Armor in reserve. 7th Bn (155mm, SP), 50th Arty is DS to 1st Brigade, with priority of fires to TF 2-79.
- b. Opposing forces in the brigade zone have been identified as elements of the 40th Motorized Rifle Regiment, 128th MRD, 10th CAA. They have been conducting delaying actions while the remainder of the division is believed to be preparing defensive positions in the cities of FRIEDBERG and BAD NAUHEIM. The 40th MRR is at 75 percent strength, and has suffered significant casualties in both personnel and equipment.
- c. In order to isolate the city of FRIEDBERG, 1st Bde has been given the mission of cutting off the routes out of the city to the west and southwest. 2-77 Mech and TF 2-79 have succeeded in occupying the dominant terrain southwest of BAD NAUHEIM. The Bde commander has decided that it is necessary to clear the town of OCKSTADT to ensure that his area is isolated.
- d. Indications are that the OPFOR is having severe supply shortages and is occupying defensive positions within the city to gain time to resupply. Intelligence sources report that a Motorized Rifle Platoon is believed to be in the town with at least one platoon of T-62 tanks.
- e. Wind direction is from the southwest 8 to 10 kph; no precipitation expected. BMNT 0717.

## 2. Special Situation:

- a. You are the commander, Tm B, TF 2-78 Mech. Your team is at 85 percent strength. TF 2-78 is currently located in an assembly area GL760725.
- b. At 040400 Sep\_\_\_\_, TF 2-78 issued an order for continuation of the attack. See Task Force 2-78 OPORD.

## Terrain Analysis:

### Building List

NOTE: S - Stone; B - Brick; W - Wood; W/B - with Basement. Unless indicated with number, all other buildings in village are two story with basement and made of stone or masonry.

Group	Description	Height/Basement	Construction
1	Church	3	S
2	Home	1	S
4	Home	2	B
7	Barn	2	W

8	Barn	1	B
9	Barn	1	S
17	Commercial	1W/B	S
18	Commercial	3W/B	B
19	Commercial	3W/B	B
23	Home	2	W
24	Home	2	W
28	Barn	2	W
32	Home	2	W
33	Barn	1W/B	W
34	Home	2	B

# TF 2-78 OPORD

## Task Organization:

<b>Tm ALFA</b>	<b><u>Tm BRAVO</u></b>
<b>A/2-78 Mech(-)</b>	<b>B/2-7X Mech (-)</b>
<b>1/A/2-4 Armor</b>	<b>2/A/2-4 Armor</b>
<b>2 AT Sec</b>	<b>1 AT Sec</b>
<b>2/3/A/52 Engr (DS)</b>	<b>1/3/A/52 Engr (DS)</b>
	<b>1 CEV</b>

<b>Tm TANK</b>	<b><u>Tm CON</u></b>
<b>A/2-4 Armor(-)</b>	<b>AT Plt(-)</b>
<b>1/A/2-78 Mech</b>	<b>Sct Plt</b>
<b>2/B/2-78 Mech</b>	<b>Hv Mort</b>
<b>2 AT Sec</b>	<b>Redeye Sec</b>
	<b>3/A/52 Engr(-) (DS)</b>
	<b>1 CEV</b>

## 1. Situation (See General Situation)

### 2. Mission

TF 2-78 moves forward from assy area, conducts a passage of lines with TF2-79 and attacks 040800 Sep\_\_\_\_\_ to clear the village of OCKSTADT (8075) and secure CP's 2 and 3; cont atk east on order.

### 3. Execution

#### a. *Concept of Operation:* (Operation Overlay 1)

- (1) **Maneuver.** TF will pass through TF 2-79 Mech and attack on Axis RED with Tm B initially securing a foothold vic CP 1; on order, TF(-) cont atk along Axis RED with Tm A leading, followed by Tm TANK to clear OCKSTADT and seize CP 2 and 3, respectively.
- (2) **Fires.** HE with fuze VT and smoke will be fired on a line from CP 1 to CP 10 10 040755 to 040800. Dual purpose ICM rds will be fired on the center of OCKSTADT commencing 040800. Tgt group KELL fired to suppress OPFOR elements vic FRIEDBERG 040800 to 040815. Priority of fires to Tm B initially.

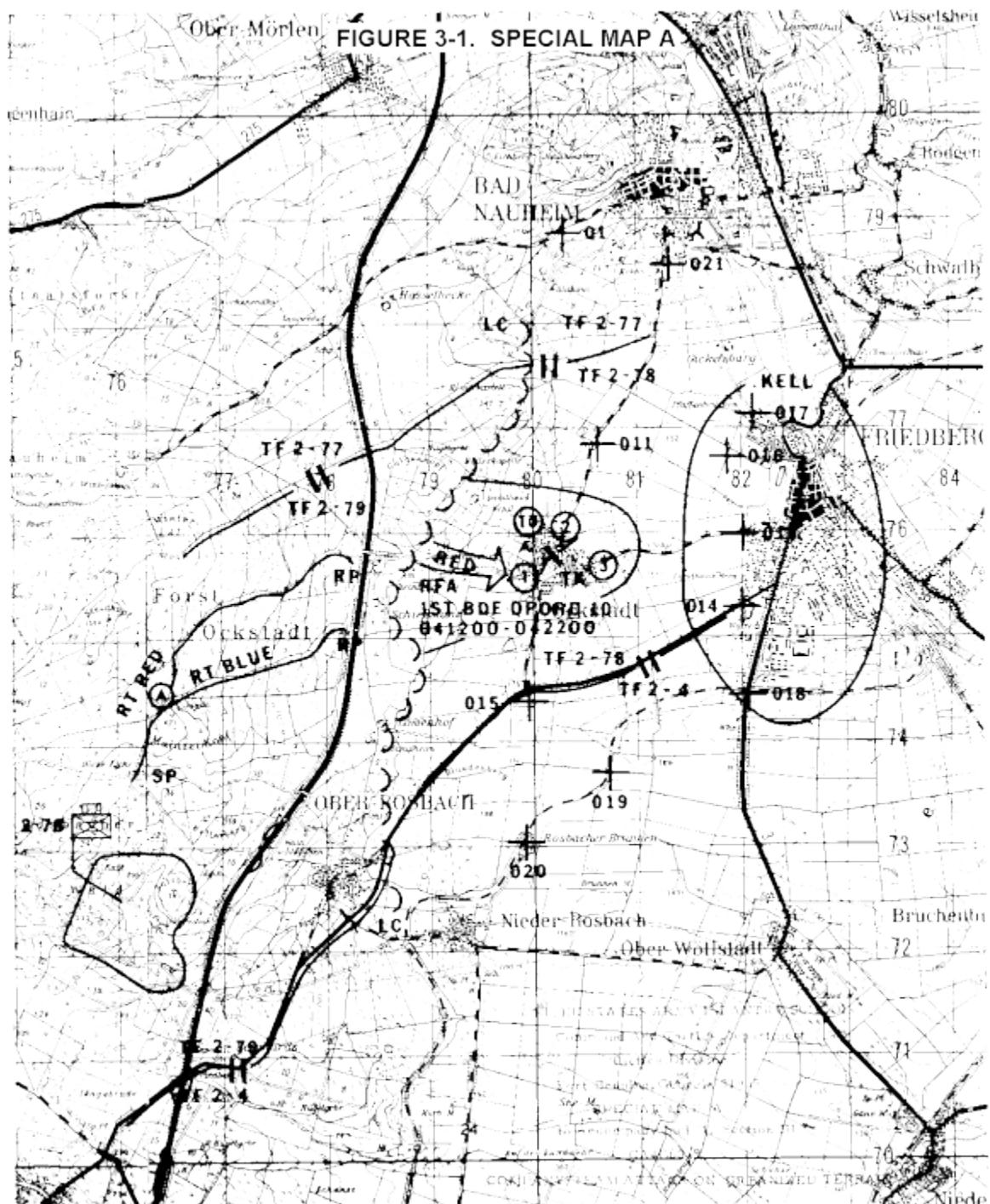
- b. **Tm A:** Be prepared to assist seizures of CP's 1 and 3.
- c. **Tm B:**
  - (1) After TM's A and TANK pass thru CP 1, revert to reserve and follow Tm A.
  - (2) Be prepared to assist in seizure of CP 2.
  - (3) Support Tm's A and Tank by fire during seizure of Tm footholds.
- d. **Tm TANK:**
  - (1) Support Tm B's seizure of CP 1 by fire vic GL790750.
  - (2) Be prepared to assist in seizure of CP 2.
- e. **Sct Plt:** Initially screen TF north (left) flank from rear of Tm A to LD; on order provide area security from rear of attacking echelons to outskirts of village.
- f. **Hv Mort Plt:** GS vic GI 780755, displace forward by sections on order.
- g. **AT Plt (-):** GS, support Tm B initially from vic GL785757; displace on order.
- h. **Redeye Sec:** GS. Protect in pri Tm B, GP; Trains.
- i. **Coordinating Instructions**
  - (1) SP is 040730 Sep
  - (2) Order of march on ROUTE RED in Tm B, Cmd Gp, AT Plt (-), Engr Plt, tm A, Tm TANK.
  - (3) Tm TANK use ROUTE BLUE fwd of Checkpoint A. Coordination between Tm A, Tm TANK, and Tm B for the passage of TM's thru CP 1 and for continuation of Tm A's attack is directed.
  - (4) Tm's B and TANK meet unit reps from TF 2-79 at respective RP's at 040700 Sep \_\_\_\_\_.
  - (5) AT Plt Ldr accompany Tm B rep for coord at RP at 040700 Sep \_\_\_\_\_.
  - (6) Tm A has responsibility for street on right boundary with Tm TANK.
  - (7) Checkpoints:
    - (a) CP 1 consists of Bldgs in 7, 8, and 9 complex north of the road and bldgs 32 through 35 south of road.
    - (b) CP 2 consists of Bldgs 1, 2, and 4 west of road.
    - (c) CP 3 consists of Bldgs 23, 24, and 28 north of road.
  - (8) No fires will be placed in RFA except those of TF 2-78 unless specifically requested by Cdr, TF 2-78.
  - (9) Bde has requested TF 2-79 to spt by fire vic LC with Tm A in the north and Tm B in the south, supporting Tm's A and TANK, respectively.
  - (10) 3/A/52 Engr (-): Priority of work to TF mobility, follow command group forward of ROUTE RED RP.

#### 4. Service Support

- a. **General:** Trains remain present loc, displace following TOC.
- b. **Materiel and Services:**
  - (1) Transportation. TF SR, proj: Intersection GL765758 south on AUTOBAHN.
  - (2) Maintenance. Maintenance collect points GL785758 and GL798756.

- c. **MEDEVAC and Hospitalization:** MEDEVAC to combat trains TF 2-79 initially then to west edge of built-up area in OCKSTADT.
- d. **Personnel:** PW collect points vic TF trains of TF 2-79.





# WORKSHEET FOR TM B OPORD

## 3. Execution

### a. *Concept of Operation:*

(1) *Maneuver.* \_\_\_\_\_

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(2) *Fires.* \_\_\_\_\_

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b. *1st Plt:* \_\_\_\_\_

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c. *3rd Plt:* \_\_\_\_\_

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d. *Tank Plt:* \_\_\_\_\_

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e. *Weapons Plt:*

(1) *AT Sec.* \_\_\_\_\_

(2) *Mort Sec.* \_\_\_\_\_

f. *1/3/A/52 Engr:* \_\_\_\_\_

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g. *Coordinating Instructions:* \_\_\_\_\_

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